

Foundations of Syntactic Theory¹

Course Information

This course is an introduction to syntactic theory with an emphasis on data analysis, critical thinking, and theory development. It is taught within the generative *Principles and Parameters* approach to syntax. Graduate-level requirements include a greater number of problems.

Course objectives

We will examine the syntactic structure of language within the generative framework of syntax. In this approach, the linguistic knowledge of a human language speaker is modeled by a formal mathematical system of rules and constraints which generates all and only the sentences that are part of the speaker's language. We will see how various modules of human language systems interact to generate sentences—primarily the semantic and morphological modules—and how specific universal constraints control this generation.

We will...

- learn about a formal system to describe sentences in human language.
- learn about the development of syntactic theory.
- apply the scientific method to generalize data, form hypotheses, and test them against more data.
- compare syntactic theories by taking into account their conceptual and empirical strengths.
- develop skills to analyze data across a wide variety of distinct languages.
- examine data and develop hypotheses and arguments to support those hypotheses.
- practice structuring arguments in a coherent and convincing way.
- compare and contrast hypotheses.

The topics we will cover include constituency, phrase structure rules, X'-theory (pronounced "X-bar"), binding theory, head movement, DP movement, *wh*-movement, ditransitive verbs, and control and raising.

¹The original development of this course was done by Andrew Carnie and later adapted by Jianrong Yu.

Learning outcomes

By the end of this course, successful students will...

1. be able to describe the complexity of sentence structure in human language.
2. be able to compare theories of syntax conceptually and empirically.
3. be able to identify the data needed to confirm or deny a hypothesis.
4. develop skills to analyze data across a wide variety of human languages.[†]
5. be able to give structural analyses of natural language sentences, which form the basis of practical applications in natural language processing and parsing.[†]
6. be able to use tools for representing the structure of natural language sentences.[‡]

[†] relates to Linguistics HLT program outcome #2.

[‡] relates to Linguistics HLT program outcome #3.

HLT learning outcomes addressed in this course

2. Students will be able to use fundamental algorithms and concepts in Natural Language Processing.
3. Students will show knowledge of tools and packages used in Natural Language Processing.

Prerequisites

None

Instructor

name Eric Jackson
email ejackson1@email.arizona.edu
office hours Thursdays 10:00am–12:00pm (Arizona time, UTC-7) and by appointment,
online via Zoom at <https://arizona.zoom.us/j/85248874426> (passcode 765062)

This is an asynchronous course, so we won't meet at a single time for class to happen. There are no sessions at which I will take attendance. My working hours are normal business hours in Arizona, and I generally do my preparation and grading for the course at that time. If you need to contact me, the best way is to send me an email or a forum message. I try to respond within 24 hours, but *during* working hours, I may be grading coursework, meeting with someone, or recording lectures, so my response may not come immediately. If there's a chance you may need my response, don't wait to find that out until a deadline is upon you.

I know that normal business hours in Arizona are not convenient for everyone in this course. If you need to meet outside of Arizona business hours, I'm holding Thursday evenings open. Contact me in advance to set up a time and a link; I won't otherwise be online then.

Course forum (Zulip)

For this course, we'll use a forum that is outside the course website, though still provided by the university. Some participation-graded activities will take place on this forum, so make sure you sign up in the first week.

In addition to the assigned forum activities, you're free to start discussions there with the class, or post questions about the course. Bear in mind that responses from the forum (from me or from other students) may be quick, but this is not guaranteed. You should plan as if forum responses will take several hours.

Readings

The textbook we'll use in this course is available for free (digitally) through the library. You'll need to log in to UA Libraries with your NetID and password to access the book in this way. You are also free to obtain a paper or digital copy of this textbook on your own.

Carnie, Andrew. 2012. *Syntax: A generative introduction*, 3rd edn. John Wiley & Sons.

ISBN-13: 978-0470655313

<https://ebookcentral.proquest.com/lib/uaz/detail.action?docID=1120243>

I may assign supplemental readings through the course website. If I do, I'll provide ways for you to access them digitally.

Requirements and grading

Students are expected to actively participate in the course by watching the recorded lecture videos, reading and digesting the assigned readings, completing the assigned homework, and engaging with the instructor and other students in the course forum. You are all adults, and I expect you to take responsibility for your own learning.

Readings

Readings from the textbook will be assigned for each unit of the course. You may read the assigned sections before you watch the lectures, or after—it's up to you. However, you must read the assigned sections and complete any reading-based activities before the end of that week. (See the section on *Participation-graded activities* below.)

Lectures

Lecture videos will be available on the course website (D2L). You are expected to watch all lectures and understand the content.

If the content of a unit is not clear to you on the first viewing, don't panic. Make sure you've done the readings from the textbook, and maybe try watching the lectures a second time. You're free to search for other presentations of the same topic online. If a concept

is still unclear, you are expected to send a question to the instructor by email, meet with the instructor in regular office hours or arrange another time to meet, or post a question for clarification on the course forum.

Homework

There will be seven graded homework assignments, one each week. (Note that the last week is shorter than others.) Graded homework assignments will be given via D2L. Student homework submissions will also be collected through the assignment item in D2L and must be in PDF format; files submitted in any other format (.doc, .docx, .rtf, .odt, .txt, or any other) will not be accepted. Freely available options to convert files to PDF include Google Docs and LibreOffice. Handwritten assignments are acceptable, so long as they are in PDF format and are reasonably legible.

Participation-graded activities

In addition to the graded homeworks, there will be two types of ungraded assignments. Completing these assignments is all that is required for full credit.

One type of participation-graded activity will be a weekly response to the assigned reading. You will post these on the Zulip forum in response to prompts that will be provided in the course website. Although you are minimally required to post your own response to the reading, you are encouraged to read and respond to other students' posts, as well.

The second type of participation-graded activity will be questions that are embedded in each video lecture. Some may be open-ended, while others may have specific answers. Questions with specific answers can be attempted *multiple times* until you arrive at the correct answer. They are not intended to add stress, but to get you actively thinking about new concepts. Your answers might not be graded, but they *will* affect how much of the course content you understand and retain. Please note that you must complete watching the video lectures before your grade on the video questions are recorded in D2L's gradebook.

Grading

Participation-graded assignments are graded as one point for completion or zero for non-completion. All your graded assignments are given numerical scores, with the number of points available specified for each assignment. A final grade of A, B, C, D, or E will be given. The following minimum percentages will guarantee the corresponding letter grades, in accordance with university policy:

A:	90–100%
B:	80–89.9%
C:	70–79.9%
D:	60–69.9%
E:	0–59.9%

The graded homework assignments and participation-graded activities will contribute to your final grade as follows:

	type	number	total
homework assignments		7	70%
lecture questions		variable	20%
reading responses		7	10%
	total		100%

The due date for each assignment will be posted with the assignment in D2L. All times will be given in Arizona time (Mountain Standard, GMT-7). If you have an unexpected life event that will keep you from completing an assignment on time, talk to me about accomodation as soon as you can. **Late work will otherwise not be accepted.**

Course schedule

The course is divided into seven topical modules, one each week, with lectures, activities, and assignments for each module. All course material are available on D2L. Specific pages for each official reading assignment will also be found in D2L. All dates and times for the course are in Arizona Mountain Standard Time (MST-7).

START DATE	UNIT TOPIC	READING	HOMEWORK
5/16/22	Unit 1: Preliminaries	Ch 1, 2, end of 3	1: Due 05/23
5/23/22	Unit 2: PSRs and Binding	Ch 3, 4, 5	2: Due 05/30
5/30/22	Unit 3: X'-theory	Ch 6, 7, 8	3: Due 06/06
6/6/22	Unit 4: Head and DP movement	Ch 10, 11	4: Due 06/13
6/13/22	Unit 5: <i>Wh</i> -movement	Ch 12, 13	5: Due 06/20
6/20/22	Unit 6: Ditransitive verbs, control and raising	Ch 14, 15	6: Due 06/27
6/27/22	Unit 7: Advanced binding theory, wrap up	Ch 17	7: Due 7/1

Technology

This course won't involve programming in the same way that other HLT courses do. However, I may point you to some tools that will help you work with the concepts we're learning in this course. If I point you to it, it means I've at least gotten it to work for me—and I can provide limited support in getting things running for you, too. I have a preference for web-based or cross-platform solutions, but since I'm running Linux, I may not be able to help with the specifics of getting things running in Windows or MacOS.

Collaboration Policy

Students are encouraged to discuss problems and general approaches for solutions, but everyone must turn in their own work. You may not submit assignments that are substantially the same as your classmates.

Covid

1. The university has a specific site for covid information: <http://covid19.arizona.edu>.
2. I understand that these are extraordinary times and folks are experiencing new personal and financial challenges. Let me know if we need to make accommodations for covid-related things.

University boilerplate

Disabilities If you have a disability that affects how you will need to do the work in this class, please let me know *within the first week of class*.

Academic Code of Conduct Cheating and plagiarism are not remotely acceptable in any way. By this point in your academic career, it is important that you know what these things are and know what you are and are not permitted to do. You can find more information in the UA Code of Academic Integrity. Disruptive or disrespectful behavior on the class website or forum is not acceptable.

Sensitive Material This is a university and you are adults. It is possible that we may touch on topics that some students could find sensitive during the semester. Given the focus of this course, this seems unlikely, but I alert you nonetheless.

University policies

All of the following are things the university requires us to put on syllabi.

Absence and Class Participation Policy

Attendance for asynchronous courses works differently than it does for synchronous courses, but the university requires the following on syllabi anyway.

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at: <http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: <https://deanofstudents.arizona.edu/absences>

Classroom Behavior Policy

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

Threatening Behavior Policy

Required language: The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

Accessibility and Accommodations

Recommended language is provided on the Disability Resource Center website: <http://drc.arizona.edu/instructors/syllabus-statement>.

Code of Academic Integrity

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: <http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity>.

UA Nondiscrimination and Anti-harassment Policy

The University is committed to creating and maintaining an environment free of discrimination; see

<http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>

Subject to Change Statement

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.