

SYLLABUS

Tues/Thurs, 9:30-10:45 (MT), remote meetings via Zoom (link on Canvas) until Jan. 24, then Hellems 285
 Dr. Alexis Palmer, she/her, alexis.palmer@colorado.edu

Office hours:

- Mondays: 2-3:30pm, sign up here: <https://calendly.com/alexis-palmer-boulder>
- Thursdays: after class, 10:45-noon (no appointment needed)
- By appointment: email me

===== **LOGISTICS** =====

Communication expectations:

1. Canvas – Canvas is the official site for course announcements from me to you. Please check it daily.
2. Email – Email is the best way to reach me. Feel free to email at any time (alexis.palmer@colorado.edu) – I try to respond within 24 hours, except on weekends and holidays.
3. Office hours – Mondays and Thursdays – this time is for you! Please never hesitate to make an appointment. I use [calendly](https://calendly.com/alexis-palmer-boulder) to manage these appointments.

Course structure:

This course will be meeting remotely for the first two weeks, after which we'll meet in person/hybrid in Hellems 285. As a general rule, Tuesdays will be for lecture and Thursdays will be for presentation and discussion of papers, using a role-playing format.¹ Zoom attendance will always be an option if needed. All assignments, quizzes, etc. will be handled through Canvas.

===== **COURSE DESCRIPTION AND REQUIREMENTS** =====

Course Description and learning objectives:

This course is an introduction to computational models, corpora, and processing methods for discourse and dialogue. The course will introduce students to the foundational concepts and approaches, building a base from which students can go on to do research in these areas.

Course goals – students will:

- Learn about the properties of discourse that make it challenging for computational processing
- Become familiar with many of the foundational theories of computational discourse
- Develop an understanding of various models used for discourse processing, including the strengths and shortcomings of each of these approaches
- Become familiar with the main corpora available for work in computational discourse processing
- Learn about several interesting applications of computational discourse modeling
- Apply theories of discourse coherence and structure to text
- Strengthen skills in critical reading, presentation, and discussion of primary literature in computational linguistics

All readings will be made available on Canvas – there is no textbook to purchase.

¹ This is adapted from my friend Nathan Schneider (<https://people.cs.georgetown.edu/nshneid/index.html>), who adapted it from Alec Jacobson and Colin Raffle (<https://colinraffel.com/blog/role-playing-seminar.html>).

Course credit requirements and grading

1. Active weekly participation in presentation and discussion of readings: **40%**
2. At-home and in-class exercises and quizzes: **20%**
3. Final project and term paper (group project): **40%**

Schedule and due dates

Below is an overview of our schedule and topics to be covered. A detailed schedule, with all readings and due dates, will be posted on Canvas (in a separate document) by the beginning of the second week of class.

Class dates	Tuesday	Thursday
Jan 11, 13	<i>Introductions</i>	<i>Introduction to discourse</i>
Jan 18, 20	<i>Text types</i>	<i>Text organization</i>
Jan 25, 27	<i>Discourse coherence: lexical approaches</i>	
Feb 1, 3	<i>Discourse coherence: entity-based approaches</i>	
Feb 8, 10	<i>Coreference resolution</i>	
Feb 15, 17	<i>Discourse structure: RST</i>	
Feb 22, 24	<i>Discourse structure: PDTB</i>	
Mar 1, 3	<i>State-of-the-art</i>	<i>Where are we now?</i>
Mar 8, 10	<i>Applications: essay scoring</i>	<i>Applications: summarization</i>
Mar 15, 17	<i>Applications: temporal ordering</i>	<i>Applications: argumentation mining</i>
Mar 21-25	Spring break	Spring break
Mar 29, 31	<i>Dialogue: properties & theories</i>	
Apr 5, 7	<i>Structured dialogue systems</i>	
Apr 12, 14	<i>Chatbots</i>	
Apr 19, 21	<i>Buffer day</i>	<i>Presentations</i>
Apr 26, 28	<i>Presentations</i>	<i>Presentations</i>

===== ASSIGNMENTS IN MORE DETAIL =====

Presentation and discussion of readings

On Thursday of each week (beginning January 20) we will have one or more readings assigned. Instead of the usual process, where each paper is presented by one person or a small number of people, we're going to use a new approach loosely inspired by role-playing games. The idea is that each person in the class will have an assigned role for each paper. One person will present the highlights of the paper, one or more people will investigate the authors, one or more people will design an exercise for testing understanding of the core concepts, etc. (I'll provide full details – some of you will be reviewers, some will look into reproducibility, some of you will do linguistic analysis.) In this way, we ensure that everyone is engaged in the process.

Exercises and quizzes

I will frequently assign short exercises or quizzes to reinforce the lecture material – very often this will mean applying the theoretical models we have learned about to actual data. I'll give feedback for these, and we'll talk about the solutions, but they'll be graded simply on a complete/incomplete basis. At the end of the semester, I will drop your 1-2 lowest "scores".

Term project and paper

Working in small groups, you will complete a research project and write a term paper. I would ideally like to see teams that combine linguistics students and computer science students, as each group has different and valuable perspectives to offer – I reserve the right to decide on the teams myself. I am quite flexible on the topics, and we'll talk more about project topics later in the semester. Some details:

- Teams will submit project proposals sometime before spring break (date TBD)
- The final paper will be written up in an appropriate format, depending on the style (for most groups this will be a template from ACL/EMNLP/NAACL/etc.)
- The expected length of the paper will depend somewhat on the content – papers requiring more implementational work can be shorter, and papers focused more on linguistic analysis should be longer (details TBD)

===== ADDITIONAL INFORMATION =====

Class Materials for Remote Instruction

Students will need access to a computer or other device with a webcam and microphone, as well as reliable internet access, to participate in the remote portions of the class.

Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on [classroom behavior](#) and the [Student Conduct & Conflict Resolution policies](#).

Requirements for COVID-19

As a matter of public health and safety, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to [Student Conduct and Conflict Resolution](#). For more information, see the policy on [classroom behavior](#) and the [Student Code of Conduct](#). If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

CU Boulder currently requires masks in classrooms and laboratories regardless of vaccination status. This requirement is a precaution to supplement CU Boulder’s COVID-19 vaccine requirement. Exemptions include individuals who cannot medically tolerate a face covering, as well as those who are hearing-impaired or otherwise disabled or who are communicating with someone who is hearing-impaired or otherwise disabled and where the ability to see the mouth is essential to communication. If you qualify for a mask-related accommodation, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus. In addition, vaccinated instructional faculty who are engaged in an indoor instructional activity and are separated by at least 6 feet from the nearest person are exempt from wearing masks if they so choose.

If you feel ill and think you might have COVID-19, if you have tested positive for COVID-19, or if you are unvaccinated or partially vaccinated and have been in close contact with someone who has COVID-19, you

should stay home and follow the further guidance of the [Public Health Office](mailto:contacttracing@colorado.edu) (contacttracing@colorado.edu). If you are fully vaccinated and have been in close contact with someone who has COVID-19, you do not need to stay home; rather, you should self-monitor for symptoms and follow the further guidance of the [Public Health Office](mailto:contacttracing@colorado.edu) (contacttracing@colorado.edu).

In this class, if you are sick or quarantined, have a positive COVID test, know you've been exposed to someone with COVID, or simply feel ill and worry that you might have COVID, please let me know right away, and I will work with you to adjust deadlines and expectations accordingly. You don't need to tell me the nature of your illness, and you don't need to provide any sort of doctor's note.

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code academic integrity policy. Violations of the Honor Code may include, but are not limited to: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu; 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found on the [Honor Code website](#).

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. The university will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by or against members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or email cureport@colorado.edu. Information about university policies, [reporting options](#), and the support resources can be found on the [OIEC website](#).

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about their rights, support

resources, and reporting options. To learn more about reporting and support options for a variety of concerns, visit [Don't Ignore It](#).

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. **In this class, please let me know about any such conflicts at least two weeks ahead of time.**

See the [campus policy regarding religious observances](#) for full details.

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