



ENG 685: Symbolic Computational Linguistics
Spring 2026
01W-21002 online
01E-24255 face-to-face

Instructor: Dr. Christian F. Hempelmann

Office: Talbot Hall of Languages 226

Office Hours: *online* workdays 10am–10pm

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COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

Required textbooks:

- none

Texts:

- Jurafsky, Daniel and James H. Martin. 2023. *Speech and Language Processing*. 3rd Ed draft. Prentice-Hall. Selected chapters. <https://web.stanford.edu/~jurafsky/slp3/>
- Manning, Christopher D. and Hinrich Schütze. 1999. *Foundations of Statistical Natural Language Processing*. MIT. Selected chapters. Online.
- Nirenburg, Sergei and Victor Raskin. 2004. *Ontological Semantics*. MIT. Selected chapters. Online.

Optional additional reading:

- Further materials will be made available online.

Course Description:

This course provides a general introduction to symbolic computational linguistics, the study of linguistics-based computational systems that understand and generate human language. This class will cover fundamental concepts and techniques, such as lexical and ontological semantics, word sense disambiguation, syntactic and semantic parsing, and generation.

Throughout the class, students will be exposed to recent research that connects the concepts learned to exciting research questions that are practically motivated and application-oriented.

Prerequisites: ENG 683.

Course Objectives:

1. Students will become familiar with basic concepts in computational linguistics and the way of linguistically thinking about an issue through readings from texts, in-class discussions, and exercises done as homework and in class. This objective will be measured through exercises and contributions to a final project and exam.

2. Students will become active participants in the course, not only in staying current with readings and other assignments, but also in sharing their understanding of the material as assessed by weekly exercises and contributions to in-class discussions.

Student Learning Outcomes

Students who have successfully participated in this class will

1. understand the history of the discipline and its subdisciplines, in particular in relation to the fields of linguistics—phonology, syntax, semantics—and other fields of science;
2. have hands-on knowledge of theories and algorithms required to process natural language;
3. grasp the crucial differences between natural and artificial languages;
4. be able to apply this knowledge to real-world issues, theoretically and practically;
5. read scientific texts on these issues;
6. do guided research and in a topic in computational linguistics.

COURSE REQUIREMENTS

Instructional Methods, Activities, and Assessments

Readings and Topics

Many of the readings for this course will come from Jurafsky and Martin (2023). We will begin by reading introductory chapters, continue by exploring issues in the history of the discipline and the main problems it has faced, and finally discuss selected theories and topics in computational linguistics with the help of the readings and current research of the instructor. These topics include, human-computer interface design, voice recognition and production, machine translation, data mining, web search technology, computational humor, information security and assurance, and artificial intelligence. These readings from other sources will be made available on eCollege and as links to the webpages of their authors. Read all assigned readings closely before class and be prepared to discuss them in class.

Exercises and Final Project

Throughout the semester we will do a number of smaller graded (plus, check, minus) exercises, some in class, most as homework. Assignments have to be handed in on time and are dropped one letter grade for each day they are late, unless there is a documented emergency. The final project for this class will be a guided literature review on a topic in computational linguistics, a programmed solution to a real-world problem in NLP, or a solid practical and theoretical involvement in the Tolkien Corpus Project. After we have discussed the basics of the field and looked at a number of applications, you will write a proposal for your project (participation). After the proposal has been approved, you will produce a draft, which will be the basis of a conference with the instructor. The final project (participation) will be due at the end of the semester.

Computers

Computer literacy, as well as a little programming (or a lot, if you want to) is part of this course. Apart from in-class writings, all assignments must be printed. Save everything you write. Make backup copies. Losing a file is no fun and no excuse for missing an assignment.

Much of our communication will be by e-mail, and I usually send e-mails after every class. It is university policy that we all check our e-mail account at least once per weekday and respond within 24h, if a response is required. If you send me e-mail, include the course

number and the project in the subject line. There will be an eCollege shell, where materials, including this syllabus, and announcements will be posted and where assignments can be exchanged.

Attendance and Participation

In the face-to-face section, you don't want to miss class! It will affect your performance and your grade. Attendance is taken. If you are not there, you cannot get feedback, participate in the discussion (one percent down for every miss after the third one), and hand-in assignments. So be there! Missing an appointment we have set is an absence. For an excused miss, and thus the possibility not to lose points, you have to let me know in advance. If you miss a class, you are responsible to find out what was going on in class. Participation facilitates your understanding of the issues we'll discuss in this class. A positive attitude and active participation are important to succeed in this class.

Grading Policy

If you have completed all assignments by their due dates, in particular the midterm and final, and satisfied the attendance requirements, and all other requirements stated in this specific or the departmental syllabus, your grade for this course will be determined as follows:

A	$\geq 90\%$	assignments, exercises	30%
B	89-80%	final project	60%
C	79-70%	attendance, attitude, participation	10%
D	69-60%		
F	< 59%		

Attendance Policy

Students are responsible for attending class and keeping a log of their attendance. Please note that this means that no excuse will be accepted for failure to comply with the class requirements. No make-up quizzes will be given or late assignments accepted. Students needing particular attention should notify the instructor during the first week. If you miss a class you are responsible to receive the information you missed or you have to be prepared for surprises.

Note that this schedule is purely tentative and provided as a rough idea of how we will distribute class time. Changes can and will be made.

Tentative Schedule

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week 1

intro general

intro NLP

week 2

language for non-linguists

week 3

edit distance

week 4

Bayes

Markov

week 5
NLP pipelines

week 6
temporal cohesion
computational humor

week 7
vectors as symbolic models

week 8
WordNet
concept nets/knowledge graphs

week 9
ontologies I

week 10
ontologies II

week 11: 3/31
Cyc, etc.

week 12
links to "AI"

week 13
wrap-up

week 14
presentations

week 15

TECHNOLOGY REQUIREMENTS LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@etamu.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a ETAMU campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here: <https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

This is an online course, so we will pay close attention to our official email and aim to respond within 24 hours. Any correspondence with the instructor needs to include the student instructor, Luz Carazut (lcarazut@leomail.tamuc.edu).

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.etamu.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

ETAMU Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.etamu.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

"AI" Use Policy

East Texas A&M University acknowledges that there may be legitimate uses of "Artificial Intelligence," ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course. Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructor's guidelines. If no instructions are provided the student should assume that the use of such software is disallowed. In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an "AI", in any way. This specifically includes cases in which the "AI" plagiarized another text or misrepresented sources.

The use of "artificial intelligence" tools is not permitted in this class, unless explicitly agreed and announced by the instructors for specific assignments. This includes but is not restricted to ChatGPT, Claude, Gemini, Grammarly, Quillbot, Copilot.

Students with Disabilities–ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Email: studentdisabilityservices@etamu.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.etamu.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so.

Pursuant to Penal Code (PC) 46.035 and East Texas A&M Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url: <http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East Texas A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

East Texas A&M Supports Students' Mental Health

The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.etamu.edu/counsel

<http://telusproduction.com/app/5108.html>