

Course Syllabus

[Jump to Today](#) Edit

Select each button to view the course syllabus.

▼ Course Information

- Instructor: Dr. Vikas Ashok
- CS 733/833 Natural Language Processing
- Fall 2026
- Delivery mode: In-Person Classroom

▼ Course Description

Catalog Description

Natural language processing (NLP) techniques are the crux of many leading modern technologies. Advances in NLP are also critical in the pursuit of Artificial Intelligence. This course will discuss core problems in NLP and the state-of-the-art tools and techniques as well as advanced NLP research topics. The topics will include language models, part-of-speech tagging, syntactic parsing, word embedding, statistical machine translation, text summarization, question answering, and dialog interaction. At the end of the course, students will be familiar with many language-processing tasks and applications.

Course Description

NLP techniques are the crux of many leading modern technologies. Advances in NLP are also critical in the pursuit of Artificial Intelligence. This course will discuss core problems in NLP, the state-of-the-art tools and techniques, as well as advanced NLP research topics. At the end of the course, you will be familiar with many language-processing algorithms and techniques. You will also have gained hands-on experience via exciting NLP programming assignments.

Prerequisites

A grade of C or better in CS 580.

▼ Required Materials

Required Textbook

- Dan Jurafsky, James H. Martin. [Speech and Language Processing](https://web.stanford.edu/~jurafsky/slp3/old_feb24/ed3bookfeb3_2024.pdf)  (https://web.stanford.edu/~jurafsky/slp3/old_feb24/ed3bookfeb3_2024.pdf), Third Edition draft (Feb

2024)

Supplemental Materials (Optional)

- Canvas course modules

Technology Requirements

- Hardware: Computer/Laptop with Internet Connection
- Software: Web browser, Python, PDF reader, Microsoft Word

▼ Course Learning Objectives

- CLO1: Build language models
- CLO2: Use simple machine learning methods for text classification
- CLO3: Use popular statistical modeling methods for NLP tasks
- CLO4: Use deep neural networks for NLP tasks

▼ Course Schedule

In this course, you will complete the following modules and assignments

Course Schedule				
Modules	Topics	Date	Assignments	Due Date
Module 1	Introduction to Language Modeling	TBD	01 Assignment: Introduction to Language Modeling	Sep 7
Module 2	Text Classification	TBD	02 Assignment: Text Classification	Sep 21
Module 3	Word Embeddings	TBD	03 Assignment: Word Embeddings	Oct 5
Module 4	Neural Language Models	TBD	04 Assignment: Neural Language Models	Oct 26

Module 5	Sequence Labeling	TBD	05 Assignment: Sequence Labeling	Nov 13
Module 6	Transformers	TBD	06 Assignment: Transformers	Dec 3

▼ Grading Criteria

In this course, I will calculate your final grade based on the following categories:

Grading Criteria

Criteria	Percentage/Points
Assignments	75%
Project	25%

Grading Scale

Separate grading scales will be used for CS733 and CS833.

Letter grades for CS733 are based on the following percentage scale:

Grading Scale

Percentage	Letter Grade
100-93	A
92-88	A-
87-84	B+
83-80	B
80-75	B-
75-70	C+

69-65	C
64-60	C-
59-55	D+
54-50	D
49-45	D-
<45	F

Letter grades for CS833 are based on the following percentage scale:

Grading Scale

Percentage	Letter Grade
100-96	A
95-93	A-
92-89	B+
88-85	B
84-80	B-
79-76	C+
75-72	C
71-68	C-
67-64	D+
63-60	D

59-55	D-
<55	F

Policy on Incomplete Grades

A grade of "I" indicates assigned work yet to be completed in a given course, or absence from the final examination, and is assigned only upon instructor approval of a student request. The "I" grade may be awarded only in exceptional circumstances beyond the student's control. The "I" grade becomes an "F" if not removed by the day grades are due for following term based on specific criteria: [Incomplete, Withdraws and Z grades \(https://www.odu.edu/academics/academic-records/grades/incompletes-withdraws-zgrades\)](https://www.odu.edu/academics/academic-records/grades/incompletes-withdraws-zgrades).

▼ Expectations

What you can expect from me, as your instructor:

- I will ensure the accuracy of the course content.
- I will provide clear guidelines on the course assignments.
- I will be available to answer your questions.
- I will provide meaningful feedback in a timely manner.
- I will do my best to create a worthwhile learning experience for all of my students.
- I will follow fair and clear evaluation guidelines for all the course assignments.
- I will do my best to prepare you for exams and assignments.

What I expect from you, as my student:

- You will complete all course readings and assignments in a timely manner.
- You will follow the ODU honor pledge.
- You will follow proper [netiquette \(https://online.odu.edu/resources/study-netiquette-five-rules-being-good-online-classmate\)](https://online.odu.edu/resources/study-netiquette-five-rules-being-good-online-classmate).
- You will interact with your faculty and classmates professionally and respectfully.
- You will avoid sarcasm and inappropriate language, including the use of ALL CAPS.
- You will acknowledge your classmates' ideas and build on them to contribute to the discussion.

▼ Course Policies

Attendance and Participation

Attendance is not mandatory. Feel free to access course material anytime online on Canvas, based on your convenience and schedule.

Late Assignments

Homework assignments and reports are due at exactly at midnight on the specified dates. **Each student has one chance per semester to submit an overdue assignment within 24 hours after deadlines without penalty.** Students MUST provide a reasonable explanation. Submissions after deadlines or beyond grace period are counted 50% of the actual score, e.g., if an assignment earns 90 points, only 45 points are counted. My feedback regarding assignments will be provided in the your submission files within one week from the due date.

Assignment Policy

All of your assignment submissions will be checked by Turnitin for plagiarism and use of AI tools. All assignments in this course should be completed individually. No sharing is permitted. Assignments cannot be completed by using any AI tools, such as ChatGPT.

Course Disclaimer

The course schedule and activities are subject to change. Changes will be posted as Announcements in Canvas.

▼ University Policies

- ▶ **Code of Student Conduct and Academic Integrity**
- ▶ **Honor Pledge**
- ▶ **Discrimination Policy**
- ▶ **Diversity and Inclusion**
- ▶ **Educational Accessibility and Accommodations**
- ▶ **University Email Policy**
- ▶ **Withdrawal**
- ▶ **Privacy of Student Information**

Course Summary:

Date	Details	Due
Mon Sep 7, 2026	 01 Assignment https://canvas.odu.edu/courses/212710/assignments/3295673 due by 11:59pm 	
Mon Sep 21, 2026	 02 Assignment https://canvas.odu.edu/courses/212710/assignments/3295675 due by 11:59pm 	
Mon Oct 5, 2026	 03 Assignment https://canvas.odu.edu/courses/212710/assignments/3295678 due by 11:59pm 	
Mon Oct 26, 2026	 04 Assignment https://canvas.odu.edu/courses/212710/assignments/3295680 due by 11:59pm 	
Fri Nov 13, 2026	 05 Assignment https://canvas.odu.edu/courses/212710/assignments/3295682 due by 11:59pm 	
Thu Dec 3, 2026	 06 Assignment https://canvas.odu.edu/courses/212710/assignments/3295684 due by 11:59pm 	
	 0.6 Complete Syllabus Quiz https://canvas.odu.edu/courses/212710/assignments/3295671 	
	 01 Feedback Survey https://canvas.odu.edu/courses/212710/assignments/3295674 	
	 02 Feedback Survey https://canvas.odu.edu/courses/212710/assignments/3295676 	

Date	Details	Due
	 <u>03 Assignment</u> (https://canvas.odu.edu/courses/212710/assignments/3295677) 	
	 <u>03 Feedback Survey</u> (https://canvas.odu.edu/courses/212710/assignments/3295679) 	
	 <u>04 Feedback Survey</u> (https://canvas.odu.edu/courses/212710/assignments/3295681) 	
	 <u>05 Feedback Survey</u> (https://canvas.odu.edu/courses/212710/assignments/3295683) 	
	 <u>06 Feedback Survey</u> (https://canvas.odu.edu/courses/212710/assignments/3295685) 	
	 <u>07 Feedback Survey</u> (https://canvas.odu.edu/courses/212710/assignments/3295686) 	
	 <u>08 Feedback Survey</u> (https://canvas.odu.edu/courses/212710/assignments/3295687) 	
	 <u>1 Assignment</u> (https://canvas.odu.edu/courses/212710/assignments/3102691) 	
	 <u>1 Discussion</u> (https://canvas.odu.edu/courses/212710/assignments/3102667) 	

Date	Details	Due
	 1 Quiz (https://canvas.odu.edu/courses/212710/assignments/3102695) 	
	 Course Syllabus Quiz (https://canvas.odu.edu/courses/212710/assignments/3102701) 	
	 Week 1 Assignment (https://canvas.odu.edu/courses/212710/assignments/3295688) 	
	 Week 1 Discussion (https://canvas.odu.edu/courses/212710/assignments/3295672) 	