

Natural Language Processing Course Syllabus

Course Information

Course Prefix and Number: CS7650

Credit Hours: 3

Instructor: Riedl, Mark

Course Description

Natural Language Processing (NLP) seeks to endow computers with the ability to intelligently process human language. NLP components are used in conversational agents and other systems that engage in dialogue with humans, automatic translation between human languages, automatic answering of questions using large text collections, the extraction of structured information from text, tools that help human authors, and many, many more.

This course will teach you the fundamental ideas used in key NLP components as well as current state-of-the-art practice in developing NLP algorithms.

Course Learning Outcomes

There are two primary objectives for the course:

1. To develop a deeper understanding of the algorithms, data structures, and models that enable computers to process, understand, generate, and reason about natural language data
2. To develop the design and programming skills that will help you to build natural language processing systems.

Required Course Materials

Required Text: [Natural Language Processing](#) (2018) by Jacob Eisenstein (online textbook)

Grading Policy

Specified on the course forum along with deliverables.

Attendance Policy

As an online course, there is no required attendance. Students will access lectures and engage with work deliverables according to the lecture and deliverables schedule detailed in the course forum.

Academic Honesty/Integrity Statement

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the [Student Code of Conduct](#) and [Academic Honor Code](#).

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations. Other violations of student integrity will be clearly stated in the course forum, such as policies regarding the appropriate use of artificial intelligence, generative AI, and chatbots.

Allegations of scientific or scholarly misconduct are handled in accordance with the procedures outlined by the [Policy for Responding to Allegations of Scientific or Other Scholarly Misconduct](#)

Core IMPACTS

Not applicable

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail the instructional team as soon as possible in order to set up a time to discuss your learning needs [contact the Office of Disability Services](#).

Student-Faculty Expectations

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulates some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.