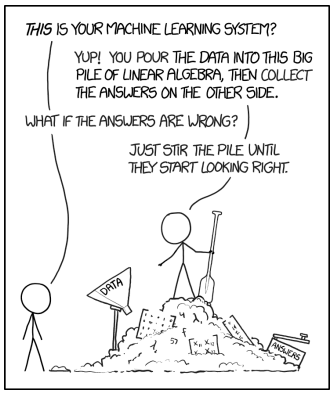


LIN4930/6932 Computational Linguistics

Spring 2022

MWF 1:55-2:45pm in Walter J Matherly H 0102

Instructor: Sarah Moeller
Email: smoeller@ufl.org
Office hours: Turlington 4017
Mon 3-4 & Wed 4-5
or Zoom by appointment

TA: Nathan Jessurun
Email: njessurun@ufl.edu

Course description

This course surveys selected topics and tasks in computational linguistics. Students will use computational methods and tools to discover linguistic structures from language data automatically and evaluate the output of the tools. The course builds a foundation for data science, natural language processing, and analytical linguistics in tech industry. Students will present their findings at the end of the semester.

Students in this class are expected to have a background in either computer programming or linguistics, but not necessarily both. Along the way, linguists will learn to computer scientists engaged with natural language processing and computer scientists with linguists.

Expect this class to be difficult at times and easy at others, but always presenting a healthy challenge that demands quality time and effort from you.

By the end of the course, students should (ideally):

- . . . be familiar with computational linguistic topics, tools, and resources, and how they are applied in training and evaluating output of artificial intelligence systems
- . . . write scripts appropriate for text processing and evaluation in Python and use Jupyter Notebook in Pycharm
- . . . understand the role of annotation in machine learning
- . . . conceptualize problems from the perspective of computational linguistics

Grade breakdown

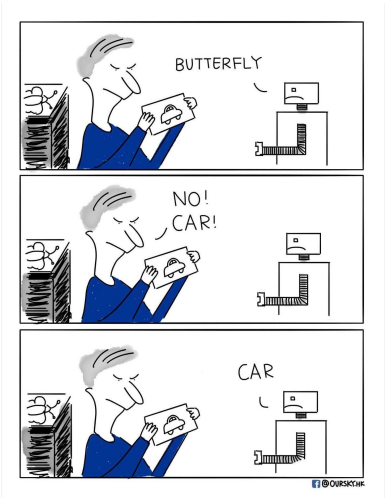
Attendance & Participation	5%
Track evaluation	10%
Quizzes	10%
Lab assignments	15%
Final Paper/Presentation	20%
Homeworks	40%

Attendance and Participation

Participation in class activities and general discussions is highly encouraged. Participation is primarily evaluated for civil behavior and professionalism, such as quality of writing and presentations, communication style with instructor, teaching assistant, and teammates, polite apologies for tardiness, etc.

Tracks

Within the first three weeks, all students must complete a Programming or a Linguistics Track. Students who have fulfilled the prerequisite (LING 3010 or equivalent) but have not taken Python course must complete the Programming Track. Students who have not fulfilled the prerequisite must complete the Linguistics Track. Those who have fulfilled the prerequisite and already know how to program in Python must complete a customized track on consultation with the instructor.



Labs and Optional Labs

Labs are short assignments, usually requiring some programming, that make reference to class material or discussions. Most labs must be completed in order to do the homeworks.

Two optional labs will be offered every week, focusing on programming skills necessary for the Programming Track, required labs, and homeworks. Students are highly encouraged attend both labs every week, especially those who have not programmed before.

Homeworks

Each student will be assigned a text to work with. They will submit a written analysis of their work on these texts at various points.

Final Paper/Presentation

During the last week of class, students enrolled in LIN 4930 (undergraduates) will present a summary of their work analyses and findings. Presentation will involve both a visual and a 4-6 oral component.

Students enrolled in LIN6932 (graduates) will form teams of at least three and write a paper that discusses the data, results, and analyses from all their (and any participating undergraduate's) combined homeworks. For every three students, at least one more experiment must be completed and incorporated into the paper.

For extra credit, undergraduates may co-author final papers with graduate students. Participation and credit is invitation-only.

The fine print

ACADEMIC INTEGRITY. UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with me or TAs.

DIGITAL DISTRACTION. When your device is displaying things irrelevant to class, you distract not only yourself but other students to whom the screen is visible. Research demonstrates that such distraction is detrimental to learning. I expect your full attention and presence, and I expect you to allow the same to others. Violation of this may result in public reprimand and grade deduction.

CLASSROOM CONDUCT. Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to professional behavioral standards may be subject to discipline. I pledge to treat each of you with dignity, respect, and professional courtesy; I expect you to do the same for me and for each other.

ACCOMMODATION POLICIES. If you qualify for accommodations because of a disability, please submit your accommodation letter from the Disability Resource Center to me in a timely manner so that your needs can be addressed. Disability Resource Center https://disability.ufl.edu/students/get-started/.

RELIGIOUS OBSERVANCES A student should inform me of religious observances that will conflict with class attendance, tests or examinations, or other class activities prior to the class or occurrence of that test or activity. I am obligated to accommodate your religious observances. See policy details at https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#religiousholidaystext.

COURSE EVALUATIONS. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations. Students will be notified on Canvas from GatorEvals when the evaluation period opens, and can complete evaluations by email, in their Canvas course menu, or via ufl.bluera.com/ufl/.

GRADING POLICY. See https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/.

RECORDING LECTURE CONTENT. Students are allowed to record class lectures. However, the only allowable purposes of these recordings are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. Specifically, students may not publish recorded lectures without the written consent of the instructor. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. A recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil action and/or discipline the Student Honor Code and Student Conduct Code.