

LING 388 Syllabus

Spring 2024

Administrivia

This course has three aims:

- Introduce you to natural language processing (problems/tools etc.)
- Introduce you to some programming (Python 3)
- Prepare you for more fundamental and advanced classes
 - e.g. LING/C SC/PSYC 438 *Computational Linguistics*
 - a possibly pathway to the HLT Master's (Accelerated Program or Regular)

Learning outcomes:

- familiarity with tools
- know how to write simple programs
- be ready to take more classes

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There are no pre-requisites

- *students will have a wide variety of backgrounds*
- I'm gonna assume you don't know how to program at all (*yet*)
- everything you need will be supplied – except a laptop (**you need this!**)

No textbook required

Classroom etiquette

- ask questions
- follow along with your own laptop (**preferred**) or use the lab computer!

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- Slides will be available just before each class:
 - sandiway.arizona.edu/#courses
 - may be updated after each class (corrections; clarifications etc.)

LING 388
Computers and Language
Spring 2024

This is an introductory course in computational linguistics for undergraduates. There are no prerequisites. There is no textbook. Student will learn to program using Python (3.x) and also learn to use basic computational tools such as NLTK for language analysis.

Both classroom lectures and computer laboratory exercises will be used. A term project illustrating the skills learnt is required.

Students will need their own computer, preferably a laptop.

Software

We will use **Python** and **nlk**.

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- Lectures will be recorded using the Panopto system
 - accessible via the course webpage via a browser
 - (video, laptop screen, synchronized slides, keyword search)
 - (successful) recordings of the lectures **not guaranteed**

THE UNIVERSITY OF ARIZONA Powered by Panopto Fall2021 > Thursday, September 9, 2021 at 12:27:24 PM

Cool find!

- on the pronunciation of hex numbers (courtesy of Matthias):
- [https://www.youtube.com/watch?v= zTpwNR5Bf4](https://www.youtube.com/watch?v=zTpwNR5Bf4)

Kid: 'Cause it's binary? You know, binary's just ones and zeroes.
Bachman: Yeah, I know what binary is. Jesus Christ, I memorized the hexadecimal times tables when I was fourteen writing machine code. Okay? Ask me what nine times F is. It's fleventy-five. I don't need you to tell me what binary is.

- <https://www.bzarg.com/p/how-to-pronounce-hexadecimal/>

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| Discussion | Administrivia | 0:54 |
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| Bookmarks | hw4.xlsx | 0:55 |
| | hw4.xlsx | 6:26 |
| | Cool find! | 6:27 |
| | Python: basic data types | 10:30 |
| | Python: Strings | 12:09 |
| | Python: Strings | 18:37 |
| | Exercise 1 | 18:45 |

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Homeworks

- approx. 10 homeworks in total (**70%** of the grade)
- homework schedule:
 - all homeworks will be introduced in class and discussed
 - all homeworks will be **reviewed** in class
 - Example: if handed out on a **Thursday**, will be reviewed **next Tuesday** in class. Hence homework will be due by midnight on Monday night prior to class *unless otherwise specified*
 - Example: short homeworks may be assigned on a **Tuesday** and due by midnight **Wednesday** (reviewed on **Thursday**)
 - **late policy**: *none*, if you will be away: let's make prior arrangements

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- Term project (e.g. do an experiment using the tools or build some cool application) – **30%** of the grade
 - don't worry, there'll be lots of opportunities for projects
- Office hours: by appointment (send email; try walk-in)
 - attempt homeworks as early as possible
 - gives you extra time to ask clarification questions
 - bring laptop if something is not working
- After class (short questions; clarifications):
 - please ask during class time

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Homeworks

- Submit by email
 - sandiway@arizona.edu
 - Subject line: e.g. **388 Homework # Your Name**
- **ONE** PDF file containing everything
 - **no** .docx; use cut and paste; screenshots etc.
 - **not** one document per homework question
 - code may be requested (if so *submit as a separate attachment to homework email*)

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- Course Policy:
 - you may discuss homework questions with other students
 - you may use ChatGPT
 - however, you must write it up yourself (in your own words, your own code etc.)
 - cite (web) references, ChatGPT AND your classmates (in the case of discussion)
 - Student Code of Academic Integrity: plagiarism etc.
 - <http://deanofstudents.arizona.edu/codeofacademicintegrity>
- Revisions to the syllabus
 - “the information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed appropriate by the instructor.”

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Final Examination or Project

- No examinations, e.g. mid-term or final, are scheduled for this course.

Classroom Behavior Policy

- Students are expected to ask questions in class and to make use of their laptops during class in order to better follow the material and demonstrations, e.g. programming.

Threatening Behavior Policy

- The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself.
- See <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

UA Nondiscrimination and Anti-harassment Policy

- The University is committed to creating and maintaining an environment free of discrimination; see <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>.

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- No lectures scheduled on:
 - Tues Feb 27th: I'm away in Japan
 - Thurs Feb 29th: ditto.
 - Tues March 5th: Spring Break
 - Thurs March 7th: Spring Break
- Pre-recorded lecture for Feb 27th
 - Homework also given out.
- Note:
 - any other cancellation dates will be announced in due course