

Natural Language Processing Course Tentative Schedule of Class Sessions 2014

Date Topics and Assignments

- 8/25 Course Overview and Introduction to NLP
- 9/03 (Labor day) Corpus Linguistics
Readings: Chapters 0 and 1 NLTK book.
Optional Reading: Chapter 1 J&M either edition,
- 9/08 N-gram Models and Analysis
Optional Readings: Sections 4.1 – 4.7 J&M, 2nd ed., Ch. 6 J&M, 1st ed.
Readings: Ch. 2, J&M either ed.
Reading: Church and Hanks paper
Assign Homework 1: Corpus Statistics and Mutual Information
- 9/15 Regular Expressions, Morphology
Optional Readings: Ch. 3, J&M either ed.
J&M Morphology examples
- 9/22 Part-of-speech Tagging
Optional Readings: Ch. 5 J&M 2nd ed., or Ch. 8 J&M 1st ed.
Optional reading: Eric Brill, Transformation-Based Error-Driven Learning.
Homework 1 Due.
- 9/29 Context Free Grammars
Optional Readings: Ch. 12 J&M 2nd ed., or Ch. 9 J&M 1st ed.
Assign Homework 2.
- 10/06 Parsing, Statistical Parsing, Dependency Parsing
Optional Readings: Ch. 13 J&M 2nd ed., or Ch. 10 J&M 1st ed.
Optional reading: Joakim Nivre, Deterministic Dependency Parsing of English Text.
- 10/13 Semantic Representations, Lexical Semantics, WordNet
Optional Readings: Ch. 17 J&M 2nd ed., or Ch. 14 J&M 1st ed.
J&M 2nd ed. Sections 19.1-19.3 and 20-1 – 20-8,
or J&M 1st ed. 16.1 – 16.2 and 17.1-17.2
Homework 2 Due.
- 10/20 Classification and Machine Learning, Semantic Role Labeling, Part I
Readings/Videos: Machine Learning for NLP, Videos from Andrew Ng
Optional Readings: J&M 2nd ed. Sections 19.4 and 20.9
Assign Homework 3.
- 10/27 Semantic Role Labeling, Part II, Information Extraction

- 11/03 Information Retrieval, Question Answering
Optional Reading: Ch. 23 J&M 2nd ed.
(Preliminary) Topics for NLP Applications
Homework 3 due.
- 11/10 Finish Lexical Semantics, Emotive Aspects of Language, Summarization, Machine Translation
Optional Readings: Ch. 22 J&M 2nd ed.
Choose application topics.
Assign Final Projects.
- 11/17 Discourse Linguistics, Anaphora & Coherence
Optional Readings: Ch. 21 J&M 2nd ed., or Ch. 18 J&M 1st ed.
Finalize application topics and groups.
Lab: discussion of final projects, group meeting time
- 11/24 Thanksgiving Break
- 12/01 Pragmatics, Dialogue Theory,
Optional Readings: Ch. 24.1-24.3 J&M 2nd ed., or Ch. ?? J&M 1st ed.

Last day of classes is December 3

(No Final Exam. Final Project Due date will be announced, possibly Dec. 11 (last day of exams).)