

**Natural Language Processing Course**  
**Tentative Schedule of Class Sessions 2013**  
**(Latest revision: 1/30)**

**Date Topics and Assignments**

1/14-16 Course Overview and Introduction to NLP

1/23 (MLK day) Corpus Linguistics  
Readings: Chapters 0 and 1 NLTK book.  
Optional Reading: Chapter 1 J&M either edition,

1/28-30 N-gram Models and Analysis  
Optional Readings: Sections 4.1 – 4.7 J&M, 2<sup>nd</sup> ed., Ch. 6 J&M, 1<sup>st</sup> ed.  
Readings: Ch. 2, J&M either ed.  
Reading: Church and Hanks paper  
Assign Homework 1: Corpus Statistics and Mutual Information

2/4 - 6 Regular Expressions, Morphology  
Optional Readings: Ch. 3, J&M either ed.  
J&M Morphology examples

2/11 Part-of-speech Tagging  
Optional Readings: Ch. 5 J&M 2<sup>nd</sup> ed., or Ch. 8 J&M 1<sup>st</sup> ed.  
Optional reading: Eric Brill, Transformation-Based Error-Driven Learning.

2/18 Context Free Grammars  
Optional Readings: Ch. 12 J&M 2<sup>nd</sup> ed., or Ch. 9 J&M 1<sup>st</sup> ed.  
Homework 1 Due on February 19.  
Assign Homework 2.

2/25 Parsing, Statistical Parsing, Dependency Parsing  
Optional Readings: Ch. 13 J&M 2<sup>nd</sup> ed., or Ch. 10 J&M 1<sup>st</sup> ed.  
Optional reading: Joakim Nivre, Deterministic Dependency Parsing of English Text.

3/4 Semantic Representations, Lexical Semantics, WordNet  
Optional Readings: Ch. 17 J&M 2<sup>nd</sup> ed., or Ch. 14 J&M 1<sup>st</sup> ed.  
J&M 2<sup>nd</sup> ed. Sections 19.1-19.3 and 20-1 – 20-8,  
or J&M 1<sup>st</sup> ed. 16.1 – 16.2 and 17.1-17.2  
Homework 2 Due.

3/11 Spring Break

3/18 Case Grammar, Semantic Role Labeling  
Optional Readings: J&M 2<sup>nd</sup> ed. Sections 19.4 and 20.9  
Assign Homework 3.

- 3/25 Classification and Machine Learning, Information Extraction
- 4/01 Information Retrieval, Question Answering  
Optional Reading: Ch. 23 J&M 2<sup>nd</sup> ed.  
(Preliminary) Topics for NLP Applications  
Homework 3 due.
- 4/08 Emotive Aspects of Language, Summarization, Machine Translation  
Optional Readings: Ch. 22 J&M 2<sup>nd</sup> ed.  
Choose presentation topics.  
Assign Final Projects.
- 4/15 Discourse Linguistics, Anaphora & Coherence  
Optional Readings: Ch. 21 J&M 2<sup>nd</sup> ed., or Ch. 18 J&M 1<sup>st</sup> ed.  
Finalize presentation topics and groups.  
Lab: discussion of final projects, presentation group meeting time
- 4/22 Pragmatics, Dialogue Theory,  
Optional Readings: Ch. 24.1-24.3 J&M 2<sup>nd</sup> ed., or Ch. ?? J&M 1<sup>st</sup> ed.
- 4/29 NLP Applications: Student Presentations

(No Final Exam. Final Project Due date will be announced, possibly May 8 (last day of exams).)