

## Natural Language Processing Course

### Tentative Schedule of Class Sessions and Assignments Fall 2017

Note that the weekly lecture and lab exercises will be given in class and require attendance.

#### **Week Date Topics and Assignment Dates,**

1. 8/29, 31 Course Overview and Introduction to NLP and the NLTK  
Readings: From the NLTK book, read Chapter 0 and in Chapter 1, read sections 1.1 and 1.2 under the headings of Lists, Variables and Strings.
  2. 9/5, 7 Corpus Linguistics and N-gram Models  
Readings: From the NLTK book (1st edition), read section 1.3 under the heading Frequency Distributions and skim through section 1.4 Back to Python of Chapter 1.  
Church and Hanks paper  
**Assign Homework 1: Corpus Statistics and Mutual Information**
  3. 9/12, 14 Regular Expressions, Morphology
  4. 9/19, 21 Part-of-speech Tagging  
Readings: J&M Morphology examples (available in Blackboard)  
**Homework 1 Due at midnight 9/21.**
  5. 9/26, 28 Context Free Grammars  
**Assign Homework 2**
  6. 10/03, 05 Parsing, Statistical Parsing, Dependency Parsing  
Optional reading: Joakim Nivre, Deterministic Dependency Parsing of English Text.
  7. 10/10, 12 Semantic Representations, Lexical Semantics, WordNet  
**Homework 2 Due at midnight 10/12.**
  8. 10/17, 19 Semantic Role Labeling, Deep Learning  
**Assign Homework 3.**
  9. 10/24, 26 Information Extraction, Summarization, and Machine Translation  
Readings/Videos: Machine Learning for NLP, Videos from Andrew Ng
  10. 10/31, 11/02 Information Retrieval, Question Answering  
**Homework 3 due at midnight 11/02.**
- Remaining schedule is approximate, pending decisions on whether to participate in poster day.
11. 11/07, 09 Sentiment Analysis  
**Assign Final Projects.**

**Choose NLP application topics.**

12. 11/14, 16 Discourse Linguistics, Anaphora & Coherence  
11/21, 23 No class – Thanksgiving Break
13. 11/28, 30 Pragmatics, Dialogue Theory, Topic Modeling  
**Poster Day is Friday, Dec. 1??**
14. 12/05, 07  
**NLP Application Reports due ??**
15. **Final Projects due at midnight ??(No Final Exam)**