Introduction to NLP (2017-2018). Syllabus.

1) Overview of the course

2) What you should know about human language
   a. Units of language
   b. Applications and common tasks
   c. What is a corpus?

3) Introduction to NLTK
   a. What is a corpus?
   b. The segmentation problem. Tokenization.
   c. Text events and statistics. Frequency Distribution and Co-occurrence

4) Morphology. Morphological analysis

5) Part of Speech tagging. Markov Models. Hidden Markov Models

6) Syntax. Syntactic analysis

7) Syntactic parsing

8) Semantics. Semantic analysis.

9) Distributional Semantic Models and Vector representation of meaning.

10) Introduction to DISSECT
   a. Co-occurrence vectors

11) Neural Language Models
   a. Word embeddings

12) Machine learning. Corpus annotation. Levels of analysis
   a. Feature engineering
   b. Deep learning

13) End-to-End tasks
   a. Tasks
   b. Architectures
   c. Features

14) Final Project