Tentative Syllabus

This Syllabus is *subject to change*. ***Check often!***

Lecture Slides will be posted weekly on Blackboard.

Assignments will be posted and announced on Blackboard. We will have at least 4 main assignments and optional tutorials and exercises. (40% of the total course grade).

Midterm: (30% of the total course grade).

Final Project: There is no final exam in this course; we will have final projects instead. The final project grade will comprise a project proposal (20%), an in class presentation (20%), a final report (30%), and a system implementation submission (30%). The final project presentations will take place in the last couple of classes. The final project reports and system implementations are due on the designated final exam day. (30% of the total course grade).

Course Readings:

- Chapters and sections mainly from the Jurafsky and Martin second edition (**JM2**), Introduction to Speech and Language Processing (2009), in addition to chapters from the 3rd edition of the book (**JM3**) which is not published yet. I will include the specific chapters below.
- **Supplementary:** Materials complementing course reading, mainly, from Manning and Schutze (**MS**), Foundations of Statistical Natural Language Processing (2000), and others will be linked below.

Date	Topic	Reading	Supplementary	Things Due
08/27	**Guest Lecturer: Dr. Ayah Zirikly**	JM2(1)	MS(1,3)	
09/03	Basic Text Processing. Regular expressions and Automata.	JM2(2,3) - JM3(2)		
09/10	N-grams and Language Models. Smoothing.	JM2(4) - JM3(3)	MS(6)	
09/17	Part of Speech Tagging. Hidden Markov Models. Sentiment Classification	JM2(5, 6) - JM3(8 , A , 4)	MS(10)	Assignment 1 Due Date: Sep 20,2019
09/24	**Guest Lecturer: Kevin Foley**	JM2(6) JM3(5)	MS(9)	Form Groups for final project
10/01	Formal Grammars. Syntactic Parsing. Statistical Parsing.	JM2(12,13, 14) - JM3(10, 11, 12, 13)		
10/08	Applications: Machine Translation	JM2(25)		Assignment 2
10/15	**Midterm Exam - All topics above**			
10/22	**Fall Break (no classes)**			
10/29	Lexical Semantics. Vector Space Models. Clustering	JM2(20) - JM3(6)		Project proposal
11/05	Deep Learning: Feedforward neural network - neural language models	JM3(7)		Assignment 3
11/12	Deep Learning: sequence modeling - recurrent neural networks	JM3(9)		
11/19	Applications	JM3(17,23,24,25)		Assignment 4
11/26	Final Project Presentation			
12/03	Final Project Presentation			
12/10				Final Project