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| **Sr. No.** | **Topic** | **Lect. Required** | **Planned Date** |
| 1 | Introduction to the Course | 1 |  |
| 2 | What Do We Do in NLP, Why is NLP hard, Empirical Laws, Text Processing: Basics | 2 |  |
| 3 | Spelling Correction: Edit Distance, Weighted Edit Distance, Other Variations | 2 | 7/9/2022- 08/9/2022 |
| 4 | Noisy Channel Model for Spelling Correction, N-Gram Language Models | 1 | 9/9/2022 |
| 5 | Evaluation of Language Models, Basic Smoothing, Tutorial I | 1 | 12/9/22-13/9/22 |
| 6 | Language Modeling: Advanced Smoothing Models, Computational Morphology | 2 | 14/9/22-15/9/22 |
| 7 | Finite - State Methods for Morphology, Introduction to POS Tagging, Hidden Markov Models for POS Tagging, | 2 | 19/9/22 |
| 8 | Viterbi Decoding for HMM, Parameter Learning, Baum Welch Algorithm | 1 | 20/9/22-21/9/22 |
| 9 | Maximum Entropy Models - I, Maximum Entropy Models - II, Conditional Random Fields | 2 | 22/9/22 |
| 10 | Syntax - Introduction, Syntax - Parsing I | 1 | 11/10/22-12/10/22 |
| 11 | Syntax - CKY, PCFGs, PCFGs - Inside-Outside Probabilities, Inside-Outside Probabilities | 2 | 13/10/22 |
| 12 | Dependency Grammars and Parsing - Introduction, Transition Based Parsing: Formulation | 1 | 17/10/22 |
| 13 | Transition Based Parsing: Learning, MST-Based Dependency Parsing, MST-Based Dependency Parsing: Learning | 2 | 18/10/22 |
| 14 | Distributional Semantics - Introduction, Distributional Models of Semantics | 1 | 19/10/22 |
| 15 | Distributional Semantics: Applications, Structured Models, | 1 | 20/10/22 |
| 16 | Word Embeddings - Part I, Word Embeddings - Part II | 1 | 25/10/22 |
| 17 | Lexical Semantics, Lexical Semantics - Wordnet | 1 | 26/10/22-27/10/22 |
| 18 | Word Sense Disambiguation - I, Word Sense Disambiguation - II, Novel Word Sense detection | 2 | 31/10/22 |
| 19 | Topic Models: Introduction, Latent Dirichlet Allocation: Formulation | 1 | 1/11/22 |
| 20 | Gibbs Sampling for LDA, Applications | 1 | 2/11/22 |
| 21 | LDA Variants and Applications - I, LDA Variants and Applications - II | 1 |  |