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| --- | --- | --- |
| Week | Chapters | Estimated pages (RU+R) |
| 1 | 1 (R), 2 (RU), 3 (3.1, 3.2, 3.8, 3.9, Summary, RU; Notes, R) | 40+15 |
| 2 | 4 (RU), 5 (RU, without 5.9) | 45+30 |
| 3 | 6 (RU), Intro to Machine Learning | 35+20 |
| 4 | 7 (7.1 – 7.4 + Summary, RU), 8 (RU) | 50 |
| 5 | 9 (RU) | 50 |
| 6 | 12 (12.1 – 12.8 + Summary, RU; Notes, R),  16 (16.1, 16.3, Summary, RU) | 40 |
| 7 | 13 (RU), 15 (15.1 – 15.6.1 (R) + Summary, RU; Notes, R) | 50 |
| Exam | Midterm |  |
| 8 | (Look back at period 1); 3.10 (RU), 3.11 (RU); 5.9 (RU); 14 (RU) | 35+5 |
| 9 | 17 (RU), 18 (Intro, 18.1, 18.2, 18.6, Summary, RU) | 40 |
| 10 | 19 (RU), 21 (21.1, 21.3, 21.4, 21.5, 21.6, 21.7, Summary, RU) | 35 |
| 11 | 20 (Intro (RU), 20.1 (RU), 20.2 (RU), 20.3 (RU), 20.4 (R), 20.5 (RU), 20.6 (R), 20.7 (RU), 20.8 (RU), 20.9 (R), 20.10 (RU), Summary (RU), Notes (R)), Intro du word2vec/GloVe (R) | 55 |
| 12 | 22 (Intro, 22.1 – 22.4 (RU), 22.5 (R), Summary (RU), Notes (R)), 23 (Intro (RU), 23.1 – 23.3 (RU), 23.6 (RU), Summary (RU)) | 60 |
| 13 | 24 (Intro, 24.1 (RU), 24.2 (RU), 24.3 (R), 24.4 (RU), 24.5 (RU), 24.6 (R), 24.7 (RU), Summary (RU), Notes (R)) | 50 |
| 14 | 25 (RU) | 50 |
| Exam | Final |  |

Chapters

* Chapter 1 – Introduction (page 1, **R**)
* Chapter 2 – Regular Expressions and Automata (page 17, **RU**)
* Chapter 3 – Words and Transducers (page 45)
  + Intro (page 45, **RU**)
  + 3.1 – Survey of (Mostly) English Morphology (page 47, **RU**)
  + 3.2 – Finite-State Morphological Parsing (page 52, **RU**)
  + 3.8 – Lexicon-Free FSTs: The Porter Stemmer (page 68, **RU**)
  + 3.9 – Word and Sentence Tokenization (page 68, **RU**)
  + 3.10 – Detection and Correction of Spelling Errors (page 72, **RU**)
  + 3.11 – Minimum Edit Distance (page 73, **RU**)
  + 3.13 - Summary (page 79, **RU**)
  + Notes (page 80, **R**)
* Chapter 4 – N-Grams (page 85, **RU**)
  + Intro (page 85, **RU**)
  + 4.1 – Word Counting in Corpora (page 87, **RU**)
  + 4.2 – Simple (Unsmoothed) N-Grams (page 88, **RU**)
  + 4.3 – Training and Test Sets (page 93, **RU**)
  + 4.4 – Evaluating N-Grams: Perplexity (page 97, **RU**)
  + 4.5 – Smoothing (page 99, **RU**)
  + 4.6 – Interpolation (page 106, **RU**)
  + 4.7 – Backoff (page 107, **RU**)
  + 4.8 – Practical Issues: Toolkits and Data Formats (page 110, **RU**)
  + 4.9 – Advanced Issues in Language Modeling (page 111, **RU**)
  + 4.10 – Advanced: Information Theory Background (page 116, **RU**)
  + 4.11 – Advanced: The Entropy of English and Entropy Rate Constancy (page 120, **RU**)
  + 4.12 – Summary (page 121, **RU**)
  + Notes – page (122, **R**)
* Chapter 5 – Part-of-Speech Tagging (page 125, **RU**)
  + Intro (page 125, **RU**)
  + 5.1 – (Mostly) English Word Classes (page, 126, **RU**)
  + 5.2 – Tagsets for English (page 132, **RU**)
  + 5.3 – Part-of-Speech Tagging (page 135, **RU**)
  + 5.4 – Rule-Based Part-of-Speech Tagging (page 137, **RU**)
  + 5.5 – HMM Part-of-Speech Tagging (page 141, **RU**)
  + 5.6 – Transformation-Based Tagging (page 153, **RU**)
  + 5.7 – Evaluation and Error Analysis (page 155, **RU**)
  + 5.8 – Advanced Issues in Part-of-Speech Tagging (page 159, **RU**)
  + 5.9 – Advanced: The Noisy Channel Model for Spelling (page 165, **RU**)
  + 5.10 – Summary (page 170, **RU**)
  + Notes (page 171, **R**)
* Chapter 6 – Hidden Markov and Maximum Entropy Models (page 175)
  + Intro (page 175, **RU**)
  + 6.1 – Markov Chains (page 176, **RU**)
  + 6.2 – The Hidden Markov Model (page 178, **RU**)
  + 6.3 – Likelihood Computation: The Forward Algorithm (page 181, **RU**)
  + 6.4 – Decoding: The Viterbi Algorithm (page 186, **RU**)
  + 6.5 – HMM Training: The Forward-Backward Algorithm (page 188, **RU**)
  + 6.6 – Maximum Entropy Models: Background (page 195, **RU**)
  + 6.7 – Maximum Entropy Modeling (page 203, **RU**)
  + 6.8 – Maximum Entropy Markov Models (page 209, **RU**)
  + 6.9 – Summary (page 213, **RU**)
  + Notes (page 214, **R**)
* Chapter 7 – Phonetics (page 219)
  + Intro (page 219, **RU**)
  + 7.1 – Speech Sound and Phonetic Transcription (page 220, **RU**)
  + 7.3 – Phonological Categories and Pronunciation Variation (page 229, **RU**)
  + 7.4 – Acoustic Phonetics and Signals (page 234, **RU**)
  + 7.7 – Summary (page 249, **RU**)
* Chapter 8 – Speech Synthesis (page 255, **RU**)
  + Intro (page 255, **RU**)
  + 8.1 – Text Normalization (page 257, **RU**)
  + 8.2 – Phonetic Analysis (page 263, **RU**)
  + 8.3 – Prosodic Analysis (page 268, **RU**)
  + 8.4 – Diphone Waveform Synthesis (page 278, **RU**)
  + 8.5 – Unit Selection (Waveform) Synthesis (page 282, **RU**)
  + 8.6 – Evaluation (page 286, **RU**)
  + Notes (page 287, **R**)
* Chapter 9 – Automatic Speech Recognition (page 291)
* Chapter 12 – Formal Grammars of English (page 395)
* Chapter 13 – Syntactic Parsing (page 437)
* Chapter 14 – Statistical Parsing (page 469)
* Chapter 15 – Features and Unification (page 501)
* Chapter 16 – Language and Complexity (page 541)
* Chapter 17 – The Representation of Meaning (page 557)
* Chapter 18 – Computational Semantics (page 595)
* Chapter 19 – Lexical Semantics (page 623)
* Chapter 20 – Computational Lexical Semantics (649)
* Chapter 21 – Computational Discourse (page 695)
* Chapter 22 – Information Extraction (page 739)
* Chapter 23 – Question Answering and Summarization (page 779)
* Chapter 24 – Dialogue and Conversational Agents (page 827)
* Chapter 25 – Machine Translation (page 877)