科目ナンバリング U-				LAS30 20045 LE10													
授業科目 <英訳>	名 Pro Fu	Fundamentals of Natural Language Processing-E2 Fundamentals of Natural Language Processing-E2								属情名	情報学研究科 制紹小機 Adam Jatowt						
群	群 情報学科目群					分野(分類)	(各語	論) 使用言語						英	語		
旧群		単位数 2単位			時間数	30時間			授業	登業形態		講義(対面授		業科目)			
開講年度・ 開講期	^{開講年度・} 2025・ 前期集中		曜時限集中					配当学年		全[全回生		対象学生		全学向		
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The course offers an introduction to natural language processing providing technological and theoretical backgrounds of processing and understanding textual content using computational approaches. It gives an overview of various rudimentary techniques used to cover diverse aspects of textual content and explains how to apply them in an effective way. Some examples of recent research problems and the applications of methods to solve them will also be provided. Occasionally code in R using quanteda library will be shown, but no programming skills are needed.

[到達目標]

Under the successful completion of this course students understand the basics of natural language processing. They learn about selected fundamental tasks and problems common in text analysis and natural language processing, and know basic techniques to solve them. In addition, they are capable of interpreting text data and explaining how to extract useful information from natural language content.

[授業計画と内容]

Day 1 (8/18 08:45-10:15 10-30:12:00 13:15-14:45 15:00-16:30): NLP overview & introduction, basic text processing, Ngrams (4 classes)

Day 2 (8/19 08:45-10:15 10-30:12:00 13:15-14:45 15:00-16:30): Language models, spelling error correction, text classification, sentiment analysis (4 classes)

Day 3 (8/20 08:45-10:15 10-30:12:00 13:15-14:45 15:00-16:30): Logistic regression, Naïve Bayes, Vector semantics, Word embeddings (4 classes)

Day 4 (8/21 08:45-10:15 10-30:12:00 13:15-14:45): Named entity extraction, text summarization, QA, POS tagging (3 classes)

Day 5 (8/

22 08:45-10:15): exam (1 class)

[履修要件]

No particular prerequisites. The class will be given in English.

[成績評価の方法・観点]

Written final exam at the end of lecture.

[教科書]

D. Jurafsky & J. Martin FSpeech and Language Processing, 3rd ed. (https://web.stanford.edu/~jurafsky/ slp3/ed3book_Jan25.pdf)

Fundamentals of Natural Language Processing-E2(2)
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[授業外学修(予習・復習)等]
Selected reading materials.
[その他(オフィスアワー等)]
Up to 30 students on a first-come-first-served basis.
[主要授業科目(学部・学科名)]