This lecture focuses on morphological analysis, syntactic analysis, semantic analysis, and context analysis, including machine learning approaches, which are necessary to process natural language texts. We also explain their applications such as information retrieval and machine translation.

Students who got a credit of this class will acquire broad knowledge about language information processing and also understand basic algorithms for processing natural language texts.

One or two lectures are planned for the following topics.

1. Overview of Natural Language Processing
2. Formal Language Theory
3. Language Model
4. Word Sense Disambiguation
5. Markov Model and Part-of-Speech Tagging
6. Probabilistic Parsing
7. Machine Learning Approaches in NLP
8. Information Retrieval
9. Machine Translation

Grading is based on assignments/reports. Evaluation criteria are that students have to understand basic algorithms of language information processing and submit sufficient reports for the assignments.
教材
使用しない

参考書等
Christopher D. Manning and Hinrich Schutze "Foundations of Statistical Natural Language Processing" (MIT Press, 1998)
Christopher D. Manning, Prabhakar Raghavan, Hinrich Schutze "Introduction to Information Retrieval" (Cambridge University Press, 2008)

授業外学習（予習・復習）等
Documents used in the course will be available on the lecturers' web pages.

その他（オフィスアワー等）
オフィスアワーの詳細については、KULASISで確認してください。