

# Lecture

## “Statistical Methods in Natural Language Processing”

### SS 2015

Type	Schedule / Room	Start	Instructor
V4	Mo 10 <sup>15</sup> -11 <sup>45</sup> AH VI Mi 10 <sup>15</sup> -11 <sup>45</sup> 5055	13.04.	Prof. Dr.-Ing. H. Ney Guta
Ü2	Di 08 <sup>30</sup> -10 <sup>00</sup> 5056	14.04.	

**Content:**

Automatic methods for natural language processing play an important role in any human-machine interaction applications and other tasks in artificial intelligence. This course deals with statistical methods that have been found most successful for many tasks in natural language processing. The course covers the following topics:

- text and document classification including information retrieval
- information extraction including tagging and semantic annotation
- syntactic analysis and parsing
- language modeling
- machine translation of natural language
  - alignment and lexicon models
  - training methods
  - generation process
  - grammar-based approaches

**Assignment:**

Applied Computer Science or Field of Specialization

**Requirements:**

- Bachelor or 60 ECTS

**References:**

- C. D. Manning, H. Schütze: “Foundations of Statistical Natural Language Processing”, MIT Press, Cambridge, MA, 1999.

**Others:**

The Lehrstuhl also offers a seminar and a practical course. During both activities topics from speech and image object recognition are treated.

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