



**Universität  
Zürich** <sup>UZH</sup>

**Institut für Computerlinguistik**

Master of Arts: Major / Minor

# Computational Linguistics and Language Technology

Master of Arts: Minor

## Digital Linguistics



Why should I study  
*Computational Linguistics  
and Language Technology*  
**or**  
*Digital Linguistics?*

It is fun.



It is a hot topic.



It combines well with many programs.



It is a dynamic and evolving field.



Our teaching is oriented on the latest research.



There are top job opportunities.

# Computational Linguistics and Language Technology

## What is Computational Linguistics and Language Technology?

Computational Linguistics is an academic discipline at the intersection of linguistics and computer science. It investigates how the various aspects of languages can be modelled on a computer and made available to specific applications.

Research questions can be motivated by theoretical interests or focus on the development of tools that can be employed in various phases of automatic natural language processing. We usually speak of «language technology» when we take this application-oriented perspective.

## Why should I study *Computational Linguistics and Language Technology*?

Computational Linguistics and Language Technology is a growing field that combines well with many domains such as language studies, social sciences, history, informatics, economics, law, biology etc. The increase in digital resources and data provides ample opportunities for basic research and innovative applications. Well trained professionals in Language Technology are in high demand in industry and research.

We provide a modern curriculum focusing on Machine Learning, Machine Translation, Text Mining, Dialog Systems and Discourse Analysis with a lot of hands-on exercises. The curriculum allows to extend to information science with lectures provided by our partner institute, the Department of Informatics.

## Why should I study *Digital Linguistics*?

Digital Linguistics is a minor which does not require any prerequisites and is a valuable complement to all kinds of majors, especially for majors in language studies, history and social sciences.

# Curricula and prerequisites

## **Curriculum Major *Computational Linguistics and Language Technology***

---

Core Modules of Computational Linguistics and Language Technology	at least 24 ECTS
<ul style="list-style-type: none"><li>• Machine Learning for Natural Language Processing 1 &amp; 2 (recommended)</li><li>• Free choice of modules from various topics</li></ul>	
Scientific Specialization (Seminar)	at least 6 ECTS
Computational Linguistics and Language Technology in Practice (projects)	at least 6 ECTS
Free choice of modules (also from modules of the Department of Informatics)	24 ECTS
Master thesis	30 ECTS
	<b>90 ECTS</b>

## **Curriculum Minor *Computational Linguistics and Language Technology***

---

Core Modules of Computational Linguistics and Language Technology	at least 18 ECTS
<ul style="list-style-type: none"><li>• Machine Learning for Natural Language Processing 1 &amp; 2 (recommended)</li><li>• Free choice of modules from various topics</li></ul>	
Scientific Specialization (Seminar)	at least 6 ECTS
Free choice of modules (also from modules of the Department of Informatics)	6 ECTS
	<b>30 ECTS</b>

## **Curriculum Minor *Digital Linguistics***

---

Core Modules of Digital Linguistics	24 ECTS
<ul style="list-style-type: none"><li>• Language Data Processing (mandatory)</li><li>• Free choice of modules from various topics</li></ul>	
Scientific Specialization (Seminar)	6 ECTS
	<b>30 ECTS</b>

## **Prerequisites for *Computational Linguistics and Language Technology***

---

60 ECTS in Computational Linguistics or one of the following branches of studies: Informatics or Linguistics

---

If you have studied one of the branches of studies (Informatics or Linguistics), but do not have enough credits in Computational Linguistics, additional requirements apply.

## **Prerequisites for *Digital Linguistics***

---

none.

**All our programs are taught in English.**



## Meet the Institute of Computational Linguistics!

During your studies you will meet our highly motivated research and teaching team and will benefit from their specialized knowledge in a variety of topics. The Institute of Computational Linguistics conducts research and education in various domains of computational linguistics, applications-orientated language technology and phonetics. Our research focuses on multilingual text analysis and developing intelligent methods to digitalize and access large text collections. This includes specializing in techniques for machine translation, text mining, sentiment analysis, answer and relation extraction and semantic analysis. Our group Phonetics & Speech Sciences focuses on automatic speaker identification, speech rhythm and basic phonetics research in a variety of languages.

We are looking forward to meeting you!

### Contact

If you have any questions, please have a look at our website:

<https://www.cl.uzh.ch>

or contact our study advisor: Dr. Manfred Klenner, [klenner@cl.uzh.ch](mailto:klenner@cl.uzh.ch)

**Social Media Analysis**

**Speech Recognition**

**Machine Translation**

**Opinion Mining**

**Artificial Intelligence**

**Information Extraction**

**Natural Language Processing**

**Speaker Identification**

**Alexa**  
**Chatbots**  
**Siri**

**Deep Learning**

**Semantic Analysis**

**Text Summarization**

**Text Mining**

**Impressum**

© 2018  
Universität Zürich

Herausgeberin:  
Universität Zürich  
Institut für Computerlinguistik

Redaktion und Gestaltung:  
Alexandra Bünzli

Bilder:  
© momius (Titelbild)  
John Flury (Gruppenfoto)

Printed in Switzerland