(master)

University of Stuttgart

M. Sc.
**Computational
Linguistics**

Computational Linguistics at the University of Stuttgart

The two-year M.Sc. program Computational Linguistics (CL) is a research-oriented program. It is characterized by an emphasis on team work, laboratory work and research skills. The M.Sc. CL is offered by the Institute for Natural Language Processing (IMS), a small institute which allows students to work closely with its researchers. The program additionally profits from a very dynamic environment, as the IMS is closely embedded in a large Computer Science department and is closely connected to the renowned Linguistics department. With eHumanities being one of the research foci of the University, the M.Sc. CL is ideal for students who want to study in an interdisciplinary, innovative environment.

Study contents

The M.Sc. is designed to provide more in-depth skills and research-oriented competence in specialized subjects building on the contents of a B.Sc. in Natural Language Processing, Computational Linguistics, Computer Science, General/Formal Linguistics or a closely related field.

Admission regulations

Application is possible for the winter semester (recommended starting date; application deadline: July 15) and for the summer semester (application deadline: January 15).

Distraction experiment in the psycholinguistics laboratory of the IMS
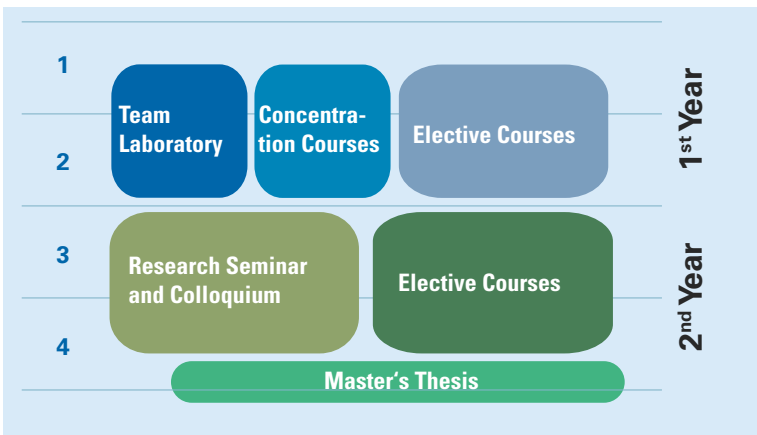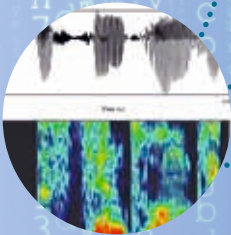
Structure of the Program

The M.Sc. CL comprises four semesters and 120 ECTS. The first semester contains a central module introducing and reviewing the most important concepts of Computational Linguistics. Standard methodologies are discussed and practiced with hands-on exercises. A Team Laboratory in the second semester further develops the skills required in project (team) work, both in research and in development. During the course of study, students choose two areas of concentration, one of which is usually the basis for the topic of their Master's thesis. Areas of concentration include: 1) Computational Syntax and Semantics, 2) Laboratory Phonology and Speech Processing, 3) Statistical Natural Language Processing. These topics reflect the areas of ongoing research at the IMS. In addition, students choose from a comprehensive catalogue of Electives, thereby extending both breadth and depth of their studies. Electives can be selected from the advanced courses of the IMS and from the course catalogs of other university departments, in particular Computer Science and Theoretical Linguistics.
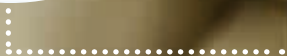
Career Prospects

Upon completion of the M.Sc. program in Computational Linguistics, students are prepared for advanced academic or industrial research and development in Computational Linguistics and Natural Language Processing, or for working in companies involved with speech and language technologies. Typical fields of work include speech processing, automatic generation and analysis of texts, machine translation, electronic dictionaries, search technology, (social) media monitoring, or dialogue systems. Students with an M.Sc. CL from Stuttgart work in renowned organisations not only in Germany, but also all over the world.

Faculty and University

The Department

Since its foundation in 1970, the Computer Science department has grown into an internationally renowned place of research. It is organized in Faculty 5, along with the department of Electrical Engineering and Information Technology. More than 20 professors, as well as several junior professors, are organized in eight institutes. Their high research intensity and their excellent success rate in acquiring research funding distinguish all Computer Science institutes. Research concentrates on fundamental topics, but also on current areas such as "ubiquitous systems", "service computing", "visualization" and "computational linguistics/e-humanities". A robotics laboratory, the highest-resolution 3D-powerwall-projection system in Europe, hardware laboratories and several student labs are part of our facilities.

The University

The University of Stuttgart is a research-intensive university with an engineering and science focus, as well as outstanding departments in the Humanities, Social Sciences and Economics. It has established itself as an internationally renowned center for research and training and has repeatedly been ranked among the top higher education establishments in Germany.

Life at the university has a clear international profile. A wide range of partnerships, inter-institutional agreements and exchange programs with universities throughout the world, place Stuttgart at the heart of a global network.

Student life

The University of Stuttgart hosts about 27,000 students, around 5,500 of which come from more than 100 countries all over the world. The university offers several programs for an active student life: a sports program, a language center, and the "Studium generale" with its orchestra, choir, debating club, amateur radio club, improvization theater and many more organizations.
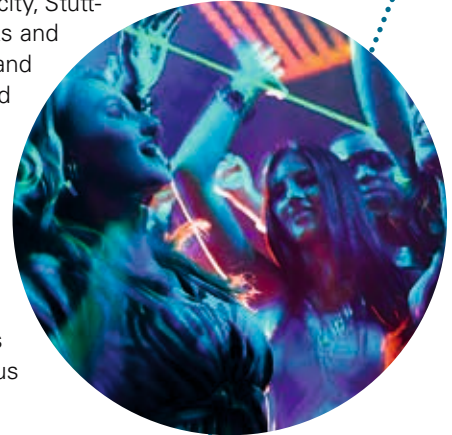
Life in Stuttgart and its Region

┈┈➔ The city of Stuttgart is the state capital of Baden-Württemberg, with about 600,000 inhabitants. It is situated in the valley of the river Neckar, between the hills of the Swabian Alb and the Black Forest. Stuttgart is a cosmopolitan city, full of cultural diversity and offering a high quality of life – e.g. Stuttgart is one of the safest big cities in Europe.

The Stuttgart region is an industrial centre specializing in high-tech industries. Many internationally renowned companies such as Bosch, Daimler, Porsche and IBM Germany have their headquarters and factories in the greater Stuttgart region. In addition, numerous smaller companies producing machine tools, textiles, precision instruments and luxury items are also located here.

Although it is an industrial city, Stuttgart also offers many parks and is surrounded by forests and vineyards. Europe's second biggest mineral baths, famous for their medicinal effects, are situated here. A large number of cultural highlights are to be found in the city including opera, ballet, theaters, concert halls and musicals, and various museums.

There is also a rich variety of attractive sporting events as well as the second largest "Volksfest" in Germany, the "Cannstatter Wasen". Stuttgart's night-life holds something for everyone: clubs and lounges on the "Theodor-Heuss-Stra-ße", small bars and cafes in the city's west end. Whether it be jazz, electro, hip-hop or other styles, there is something for every taste in music.

Mercedes-Benz Museum

Contact Information

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