EBERHARD KARLS
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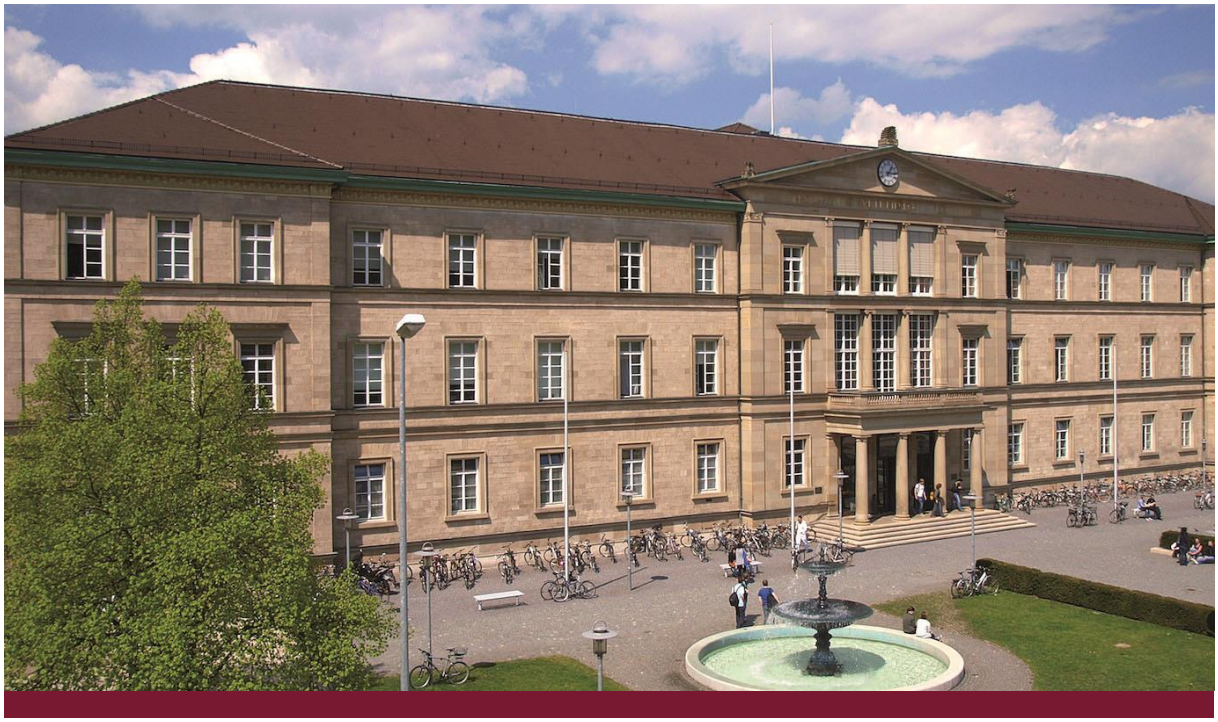

Handbook

Computational Linguistics

Master of Arts

Valid from summer semester 2023

Updated: May 2023

Adopted: June 06, 2023

Faculty of **Humanities**
Department of Modern Languages
Institute of Linguistics

Contents

1 Program goals and content

The International Studies in Computational Linguistics program is an international, English-language degree program with a strong research focus. Following a Bachelor's degree in the same discipline, the program is designed for students with a good Bachelor's degree in Computational Linguistics. Applicants with a good result in their Bachelor's degree focusing on theoretical/formal Linguistics or Informatics may also enroll in the program after a successful review of the quality and affinity of their degrees. However, they are admitted on condition that they fulfill certain requirements for material not covered in their prior studies; these conditions are met by completing the module Supplementary area: Basics. A further requirement for enrollment is a knowledge of English at least of level B2 of the Common European Framework of Reference for Languages must be documented. This must be in the form of an internationally-accepted test (TOEFL, IELTS, etc.). Applicants with a German school leaving certificate (Abitur) and applicants whose native tongue is English or who have a leaving certificate from an English-language secondary school do not need additional proof, as the B2 level is thereby shown.

The M.A. in Computational Linguistics program allows students to obtain long-term skills aimed at obtaining and increasing knowledge in a systematic and critical way, and justifying a general scientifically-based occupational qualification for students in the field of Computational Linguistics. The Computational Linguistics program teaches subject skills in close cooperation with theory and practice in an interdisciplinary context of Linguistics, Psychology, and Informatics.

On the theoretical side, the program offers all the areas of formal linguistic modelling, whereby the focus is primarily on the morphology, syntax, semantics, and formal pragmatics of the written language, also considering the interface with the spoken language. The computational linguistic integration of linguistic modelling results in solid findings in formalization and annotation, the automatization of analyses, and the necessary computational linguistic resources. Upon successful completion of the program, the student is able to employ computational linguistic methods and resources to the analysis of written language in a variety of language corpora and applications. One core area in Tübingen is current computational linguistic methodology (including statistical and rule-based processes and machine learning) and the necessary infrastructure, as well as close integration with linguistic research and applications in the fields of Digital Humanities, automated text comprehension, second language acquisition, and Education.

Graduates are able to identify complex problems in the area of Computational Linguistics, to closely define them, and to process them independently using computational linguistics methods. In doing so, they are able to locate the relevant academic literature, fully understand it, and to assess it critically. They have the capacity to make theoretically coherent arguments which they can apply to a variety of language data and competently judge the results. Graduates are able to evaluate theoretical and methodological assumptions in current research and can make well-founded assessments of independently-developed hypotheses.

On the practical side, the project-oriented advanced seminars in Computational Linguistics build upon good programming abilities in at least one object-oriented programming language from the Bachelor's program and put graduates in a position to independently specify complex computational linguistics projects and to apply current research to both realize and evaluate such projects.

2 General information

2.1 Structure

The M.A. of Computational Linguistics comprises 120 credit points which are distributed over two thematic areas and the final module. The regular duration of study including the Master's thesis is four semesters. In principle, there is no set order in which the modules ISCL-MA-01 to ISCL-MA-06 have to be completed. However, courses may require specific preconditions for participation. Likewise, course requirements that may have been defined upon enrollment have to be observed.

2.2 Study areas and modules

The program consists thematically of two study areas: I, the *Computational Linguistics core,* and II, the *Supplementary area*, which complementary classes are organized into basics, interdisciplinary context, and practical workload. Each of the two study areas consists of three modules each of 15 credit points.

2.3 Credit points

Credit points are intended to quantify and make internationally comparable the average workload a student has to manage to pass a module. One credit point is the equivalent of approximately 30 hours of work. One credit point is defined as one point under the European Credit Transfer System (ECTS). Sixty credits per year, i.e., 30 per semester, are required to complete a degree in the minimum prescribed time.

Credit points include both actual teaching time in class - contact hours - as well as private study (usually preparation and reviewing of the material taught, preparation for presentations in class, semester papers, and the Master’s thesis).

2.4 Assessed and non-assessed coursework

Various forms of coursework must be completed for credit points to be awarded. This includes assessment and ungraded coursework.

Assessed work is generally given a grade and counts as, or counts towards, the grade for the module. The assessed work required for each module in the Computational Linguistics study program is set out in the module handbook. Assessment may be made in the form of a grade for performance either at the end of the learning process in a module (summatively - e.g., as an exam or assignment = result = the module grade) or it may be in several stages within a module (formatively - e.g., as a programming project or analysis task. Assessed work from each phase of assessment is incorporated into the module grade, whereby the phases may be weighted differently. A graded module has been passed if the module is graded “sufficient” (4.00) or better; it is possible to fail. The number and timing of any repeat exams permitted are regulated in the General Provisions of the exam regulations.

Non-graded coursework is noted as “completed” or “not completed”. However, non-graded coursework has only been completed when the responsible teacher attests sufficient quality, i.e., well-founded academic feedback by the teacher is possible. Non-graded coursework has no influence on the module grade. Non-graded coursework may be, e.g., presentation, abstract, programming project, analysis, experiment.

In the obligatory courses offered once a year, a retake exam is generally offered in the week before the next semester starts so that students who did not pass an exam have a second opportunity to pass the exam in a timely manner. Where successful, they thus can take courses building on this prerequisite without delay. Alternatively, students can also choose to repeat a course in the following year.

3 Program structure

3.1 Overview of program

Module number	Compulsory/ Required elective	Module name	Recommended semester	LP
ISCL-MA-01	Compulsory	Computational Linguistics core area: Orientation	1	15
ISCL-MA-02	Compulsory	Supplementary area: Basics	1	15
ISCL-MA-03	Compulsory	Computational Linguistics core area: In depth	2	15
ISCL-MA-04	Compulsory	Supplementary area: Interdisciplinary context	2	15
ISCL-MA-05	Compulsory	Computational Linguistics core area: Profiling	3	15
ISCL-MA-06	Compulsory	a): Supplementary area: Practical	3	15
		b): Supplementary area: Interdisciplinarity in depth		
ISCL-MA-07	Compulsory	Final module	4	30

3.2 Overview by area

Study area	No.	Module name:	Semester				Σ LP
			1	2	3	4	
Computational Linguistics core area	ISCL-MA-01	Computational Linguistics Orientation	15				15
	ISCL-MA-03	Computational Linguistics In depth		15			15
	ISCL-MA-05	Computational Linguistics Profiling			15		15
Supplementary area	ISCL-MA-02	Supplementary area: Basics	15				15
	ISCL-MA-04	Supplementary area: Interdisciplinary context		15			15
	ISCL-MA-06	Supplementary area: Practical or Interdisciplinarity in depth			15		15
Master's thesis + examination	ISCL-MA-07	Final module				30	30
			30	**30**	**30**	**30**	**120**

Key	
Form of evaluation:	b = graded; ub = not graded (pass/fail)
Assessment type:	H=assignment; R=presentation, K=written exam; A=analysis-/programming task, M = oral examination, MA=Master's thesis
Duration:	Duration of exam in min.
Weighting	In courses = weighting of the exam grade as part of module grade In modules = weighting of the module grade for the final grade
Credit hours during semester	Credit hours/ week
Status:	o = obligatory; f = facultative (not compulsory)
Class type:	VL=lecture, S=seminar, K=colloquium, P=practical work):
Credit points:	Credit points under European credit transfer system (ECTS)

4 Description of modules

4.1 Module of the core area Computational Linguistics

Module no.: ISCL-MA-01	**Module name:** Computational Linguistics core area: Orientation		**Module type** Compulsory
ECTS credits	15		
Workload **- contact hours** **- private study**	Workload: 450 hours	Contact hours: 120 hours / 8 credit hours per week	Private study: 330 hours
Duration of module	1-2 semesters		
Frequency	each semester		
Language of instruction	English		
Teaching formats	Advanced seminars Learning formats within the seminars may be: Class discussion, individual work, group work, presentations, exposes, programming tasks, written analysis exercises, written tests, accompanying portfolios, etc. The concrete forms of learning are decided by the seminar teacher.		
Content of module	This module builds upon the basic linguistic and/or informatics knowledge and analysis skills developed at the Bachelor's level. It lays the groundwork for dealing with more advanced questions in Computational Linguistics. The seminars in this module are typically offered in both of the computational linguistics areas of the Institute of Linguistics and provide an overview of one of the larger fields within the subject. Topics dealt with may include the following basic computational linguistics fields: • Advanced Parsing Techniques • Computational Semantics • Computational Morphology • Lexicon and Grammar Formalisms • Survey of NLP Applications • Symbolic Methods in Computational Linguistics • Machine Learning for Natural Language		
Goals	Students who have completed this module have a solid knowledge of the relevant fields and concepts in Computational Linguistics and the subject's methodology, building upon the contents of their Bachelor's studies, and can explain them to a specialist audience in an appropriately structured oral presentation. First independent programming projects are based on core competence in programming and its application develops these both skills and the students' knowledge of basic algorithms and resources. Students process a relevant problem independently and are able to present it in methodologically correct way in an appropriate written or oral form.		

Requirements for the awarding of credit points/ grading (and weighting, where appropriate)	*Course*	*Class type*	*Credit hours in semester*	*LP*	*Assessment type*	*Assessment duration*	*Grading system*	*Calculation of module grade*
	Advanced seminar	*S*	*2/4*	*6 (3/6)*		*-*	*ub*	*-*
	Advanced seminar	*S*	*2/4*	*9 (3/6/9)*	*various*	*-*	*b*	*100%*
	In advanced seminars in which the module examination is taken, grading is usually carried out on the basis of a presentation and a written assignment. Depending on the topic, there may be an analysis or programming task, an exam, or an oral exam instead of a written assignment. The precise form of examination is decided by the relevant member of academic staff.							
Serves as:	Basis for modules ISCL-MA-03, ISCL-MA-05 and ISCL-MA-07.							
Requirements for admission	none							

Module no.: ISCL-MA-03	**Module name:** Computational Linguistics core area: In depth	**Module type** Compulsory
ECTS credits	15	
Workload **- contact hours** **- private study**	Workload: 450 hours Contact hours: 120 hours / 8 credit hours per week	Private study: 330 hours
Duration of module	1-2 semesters	
Frequency	each semester	
Language of instruction	English	
Teaching formats	Advanced seminars Learning formats within the seminars may be: Class discussion, individual work, group work, presentations, exposes, programming tasks, written analysis exercises, written tests, accompanying portfolios, etc. The concrete forms of learning are decided by the seminar teacher.	

Content of module

The seminars in this module focus on more specific problems and fields of Computational Linguistics, giving students a more comprehensive knowledge of methodology, resources, and applications. The seminars in this module are typically offered in both of the computational linguistics areas of the Institute of Linguistics. Topics dealt with may include the following specific computational linguistics fields, which are here given more detailed and in-depth treatment:

- Developing NLP resources for lesser-resourced languages
- Corpus Annotation: Linguistic Foundations and Computational Linguistic Analysis
- Computational Analysis of Discourse
- Cognitive Models of Language Processing
- Models of Natural Language in Computational Linguistics
- NLP Applications: Methods, Resources, and Evaluation
- Computational Linguistic Analysis in Learning and Education
- NLP workflows, pipelines and toolkits, Machine Translation
- Information Retrieval
- Intelligent Computer-Assisted Language Learning

Goals

Students obtain in-in-depth knowledge of the problems, methodology, and resources in fields of Computational Linguistics, both in regard to a precise understanding of the material as well as of the application of specialized algorithms, programming languages, toolkits, and advanced analysis and evaluation methodology. They are able to explain them to a specialist audience in an appropriately structured oral presentation.
Building on the initial project experience obtained in ISCL-MA-01, students are free to constructively choose advanced algorithms and resources or to implement and integrate them into their own independently-developed projects. Students process a relevant problem independently and are able to present it in a methodologically correct way in an appropriate written or oral form.

Requirements for the awarding of credit points/ grading (and weighting, where appropriate)

Name of module	*Class type*	*Credit hours in semester*	*LP*	*Assessment type*	*Assessment duration*	*Grading system*	*Calculation of module grade*
Advanced seminar	*S*	*2/4*	*6 (3/6)*		*-*	*ub*	*-*
Advanced seminar	*S*	*2/4*	*9 (3/6/9)*	*various*	*-*	*b*	*100%*

In advanced seminars in which the module examination is taken, grading is usually carried out on the basis of a presentation and a written assignment. Depending on the topic, there may be an analysis or programming task, an exam, or an oral exam instead of a written assignment. The precise form of examination is decided by the relevant member of academic staff. The total amount of credits needed can be achieved by taking several advanced seminars.

Serves as:

Basis for modules ISCL-MA-03, ISCL-MA-05 and ISCL-MA-07.

Requirements for admission

ISCL-MA-01

<table>
<tr><td>Module no.:
ISCL-MA-05</td><td colspan="2">Module name:
Computational Linguistics core area: Profiling</td><td>Module type
Compulsory</td></tr>
<tr><td>ECTS credits</td><td colspan="3">15</td></tr>
<tr><td>Workload
- contact hours
- private study</td><td>Workload:
450 hours</td><td>Contact hours:
120 hours / 8 credit hours per week</td><td>Private study:
330 hours</td></tr>
<tr><td>Duration of module</td><td colspan="3">1-2 semesters</td></tr>
<tr><td>Frequency</td><td colspan="3">each semester</td></tr>
<tr><td>Language of instruction</td><td colspan="3">English</td></tr>
<tr><td>Teaching formats</td><td colspan="3">Advanced seminars
Learning formats within the seminars may be: Class discussion, individual work, group work, presentations, exposes, programming tasks, written analysis exercises, written tests, accompanying portfolios, etc. The concrete forms of learning are decided by the seminar teacher.</td></tr>
<tr><td>Content of module</td><td colspan="3">The seminars in this module focus on the development of an independent profile in Computational Linguistics. The student learns to independently define issues and to investigate them successfully using the latest research. The seminars in this module are typically offered in both of the computational linguistics areas of the Institute of Linguistics and are often characterized by a direct link with research at the University of Tübingen. Accordingly, topics in this module may include the following current computational linguistics fields; the selection is oriented along the lines of core research in the discipline of Computational Linguistics in Tübingen and the international context:
Current Topics in Statistical Machine Translation
Computational Approaches to Text Simplification
Corpus Annotation of Information Structure
Computational Approaches to Language Variation and Stylometrics
Integrated Models of Processing
NLP supporting Noticing and Awareness in Second Language Acquisition
Language Technology for Educational Assessment
Advanced Distributional Semantics
Scientific Visualization of Language Data
Current Topics in Machine Learning for Natural Language</td></tr>
<tr><td>Goals</td><td colspan="3">Students learn to define relevant issues and on the basis of current research and to make an appropriate selection of methods and resources in order to successfully investigate these issues. This means, along with analytical competence, they also develop the conceptual and practical ability to specify their own projects, to carry them out using current resources and algorithms and to evaluate them appropriately in publications. Students are able to discuss and present in a proper structure both orally and in written form the knowledge they have gained in a methodologically correct way, and in a way which is appropriate to the material, before a specialist audience.</td></tr>
</table>

Requirements for the awarding of credit points/ grading (and weighting, where appropriate)	*Name of module*	*Class type*	*Credit hours in semester*	*LP*	*Assessment type*	*Assessment duration*	*Grading system*	*Calculation of module grade*
	Advanced seminar	*S*	*2/4*	*6 (3/6)*		*-*	*ub*	*-*
	Advanced seminar	*S*	*2/4*	*9 (3/6/9)*	*various*	*-*	*b*	*100%*
	In advanced seminars in which the module examination is taken, grading is usually carried out on the basis of a presentation and a written assignment, whereby in this advanced module an independent project or program development often provides the basis of the written assignment. The precise form of examination is decided by the relevant member of academic staff.							
Serves as:	Basis for module ISCL-MA-07.							
Requirements for admission	ISCL-MA-01, ISCL-MA-03							

4.2 Modules in the supplementary area

Module no.: ISCL-MA-02	**Module name:** Supplementary area: Basics					**Module type** Compulsory	
ECTS credits	15						
Workload - contact hours - private study	Workload: 450 hours	Contact hours: 120 hours / 8 credit hours per week				Private study: 330 hours	
Duration of module	1-2 semesters						
Frequency	Each semester However, courses subject to admission restrictions are offered only once per academic year.						
Language of instruction	English						
Teaching formats	Introductory seminars, advanced seminars Learning formats within the seminars may be: Class discussion, individual work, group work, presentations, moderation of meetings, exposés, written analysis exercises, written tests, accompanying portfolios, etc. The concrete forms of learning in each class are decided by the relevant teacher.						
Content of module	This first module in the supplementary area ensures students have a solid foundation in the core areas of Computational Linguistics. Most of the students start this International Studies in Computational Linguistics MA program on condition that they take introductory seminars in which they will learn the material which was identified as missing during the affinity test of the qualifying degree. For students with a first degree in Linguistics, this is usually programming courses, while students from the field of Informatics must take Linguistics courses. The decision on which courses are to be completed is made within the framework of the affinity and quality test of the first degree prior to enrolment in the MA program and is communicated to the student in writing together with the enrolment documents. The number and the contents of the courses indicated as admission requirements depend on the student's background and may lengthen the usual duration of the MA degree by one or two semesters. The courses required as part of the admission must be taken the first time the course is offered, and the prerequisites are met. For students with a first degree in Computational Linguistics, this basic module provides broader orientation in introductory or advanced seminars in Linguistics and Computational Linguistics.						
Goals	Students strengthen and supplement their understanding of the basics of content, methods, and practical work for MA studies in Computational Linguistics. In particular, they are familiar with the following: - Programming basics - Linguistics basics (semantics, syntax, phonology) - Computational Linguistics basics Students are able to discuss and present in an appropriate structure both orally and in written form the knowledge they have gained.						
Requirements for the awarding of credit points/ grading (and weighting, where appropriate)	*Course*	*Class type*	*Credit hours in semester*	*LP*	*Assessment type*	*Grading system*	*Calculation of module grade*

	Intro. or adv. seminar	*S/V*	*2/4*	*6 (3/6)*		*ub*	
	Intro. or adv. seminar	*S/V*	*2/4*	*9 (3/6/9)*	*various*	*b*	*100%*
	In introductory seminars grading is usually carried out based on exercises and a written exam; in advanced seminars grading is usually carried out based on a presentation and a written assignment, however there may be an analysis or programming task, written exam, or oral exam, depending on the topic. The precise form of examination is decided by the relevant member of academic staff. Specific requirements set out in the admission notice must be completed and graded. The courses required as part of the admission must be taken the first time the course is offered, and the prerequisites are met. They are counted according to the complexity of the competencies to be acquired, maximally with 15 CP. Depending on the student's background, the courses required for admission to ensure a sufficient basis for the CL MA degree may lengthen the usual duration of the MA degree by one or two semesters. Students with a Linguistics background are usually required to complete modules ISCL-BA-01 (8 CP) and ISCL-BA-04 (7 CP), which are integrated into module ISCL-MA-02 with a total of 15 CP. A more detailed description of modules ISCL-BA-01 and ISCL-BA-04 can be found in the module handbook of the Bachelor degree program Computational Linguistics. Students with a Computer Science background are usually required to complete module ASW-BA-01 (3 CP) and to select two modules out of modules ASW-BA-04, ASW-BA-05, ASW-BA-07 (6 CP each). The three modules will then be integrated into module ISCL-MA-02 with a total of 15 CP. A more detailed description of modules ASW-BA-01, ASW-BA-04, ASW-BA-05 and ASW-BA-07 can be found in the module handbook of the Bachelor degree program Computational Linguistics.						
Serves as:	Basis for modules ISCL-MA-04, ISCL-MA-06 und ISCL-MA-07.						
Requirements for admission	none						

Module no.: ISCL-MA-04	**Module name:** Supplementary area: Interdisciplinary context		**Module type** Compulsory
ECTS credits	15		
Workload **- contact hours** **- private study**	Workload: 450 hours	Contact hours: 120 hours / 8 credit hours per week	Private study: 330 hours
Duration of module	1-2 semesters		
Frequency	Each semester		
Language of instruction	English		
Teaching formats	Advanced seminars offered by the Department of Linguistics or external seminars from another MA program. The choice of an external seminar has to be discussed with and approved in advance by the MA advisor. Learning formats within the seminars may be: Class discussion, individual work, group work, presentations, moderation of meetings, exposés, written analysis exercises, written tests, accompanying portfolios, etc. The concrete forms of learning in each class are decided by the relevant teacher.		

Content of module

The second module in the supplementary area offers the opportunity to expand upon basic knowledge in the interdisciplinary context of Computational Linguistics. This may include lectures with exercises and/or seminars at the Institute of Linguistics or elsewhere. Along with the subareas of formal linguistics (syntax, semantics, pragmatics, morphology) classes in the Master's programs in Informatics, Psychology, and Cognition Science are relevant. The selection of classes outside the Institute of Linguistics must be made in consultation with the student's MA supervisor. The following is a list of some of the classes which Master's students have taken:

Area: Informatics
- VL/Ü Machine Learning I
  (Graduate School of Neural & Behavioral Sciences)
- S Machine Learning (Informatics)
- S Theoretical Informatica – Complexity Theory
- VL/Ü Algorithms and Complexity

Area: Linguistics
- HS The Empty Category Principle
- HS Verb Grammar - Synchronic and Diachronic

Area: Cognition Science / Psychology
- VL Second Language Acquisition
- HS Language Processing and Cognitive Aspects in Bilingualism
- HS Regression Modeling Strategies for the Analysis of Linguistic and Psycholinguistic Data
- HS Rational analysis of higher cognition: probabilistic models of reasoning and language use
- HS Language processing in context: mechanisms of cognitive control

Goals

In consultation with their MA supervisor, students can decide which additional qualifications and skills would be useful to their studies and select appropriate classes. They are able to adopt specific knowledge from outside of the compulsory classes in the MA program and to shape their own future research profile accordingly.
Depending on their selection of classes, students obtain deeper and/or broader knowledge in the relevant specialist areas of Informatics, Psychology, and Cognition Science. They are able to integrate their linguistic skills into these areas. At the same time, they are able to use the knowledge from other specialist areas in their own linguistic work and apply it within the framework of their subject profile.

Requirements for the awarding of credit points/ grading (and weighting, where appropriate)

Course	*Class type*	*Credit hours in*	*LP*	*Assessment type*	*Grading system*	*Calculation of module grade*
Seminars or lectures	*S/V*	*4*	*6 (3/6)*		*ub*	
Seminars or lectures	*S/V*	*4*	*9 (3/6/9)*	*various*	*b*	*100%*

Serves as: Basis for modules ISCL-MA-06 and ISCL-MA-07.

Requirements for admission ISCL-MA-02

Module no.: ISCL-MA-06	**Module name:** Supplementary area: Practical or Interdisciplinarity in depth		**Module type** Compulsory
ECTS credits	15		
Workload **- contact hours** **- private study**	Workload: 450 hours	Contact hours: variable	Private study: variable
Duration of module	1-2 semesters		
Frequency	Each semester		
Language of instruction	English		
Teaching formats	This module can be completed by a combination of coursework and/or practical work. (a) Practical work in the semester break or during semester as a student trainee. To supervise their practical work, students choose a member of academic staff, usually their MA supervisor. Following the practical work, a short report (approx. 5 pages) is written; the supervisor assesses it. (b) Advanced seminars offered by the Department of Linguistics or external seminars from another MA program. The choice of an external seminar has to be discussed with and approved in advance by the MA advisor. Learning formats within the seminars may be Class discussion, individual work, group work, presentations, moderation of meetings, exposés, written analysis exercises, written tests, accompanying portfolios, etc. The concrete forms of learning in each class are decided by the relevant teacher.		
Content of module	(a) For those doing practical work, students obtain practical knowledge preparatory to starting a career by completing practical work with a company in the field of language technology or in related fields of industry. Students complete such practical work in the semester break or during semester as a student trainee. (b) For students who do not opt to complete practical work and instead seek to set individual areas of specialization, this module provides an opportunity to delve deeper into the interdisciplinary context introduced in the module ISCL-MA-05.		
Goals	For those completing the practical work, experience in successfully integrating their theoretical competence in a practical setting, working in a team, and solution-oriented work. Alternatively, broader and deeper understanding of the interdisciplinary context of Computational Linguistics. Students are able to reflect on the content of their practical work and to report on it in written form.		

Requirements for the awarding of credit points/ grading (and weighting, where appropriate)	*Course*	*Class type*	*Credit hours in*	*LP*	*Assessment type*	*Grading system*	*Calculation of module grade*
	Advanced seminar or practical work	*S/V/P*		*6 (3/6)*		*ub*	
	Advanced seminar or practical work	*S/V/P*		*9 (3/6/9)*	various	*b*	*100%*

Serves as:	Basis for module ISCL-MA-07.
Requirements for admission	ISCL-MA-01, ISCL-MA-02, ISCL-MA-03, ISCL-MA-04

4.3 Final module

Module no.: ISCL-MA-07	**Module name:** Final module		**Module type** Compulsory
ECTS credits	30		
Workload **- contact hours** **- private study**	Workload: 900 hours	Contact hours: 0	Private study: 900 hours
Duration of module	1 semester		
Frequency	Each semester		
Language of instruction	English or German		
Teaching formats	Final oral exam and composition of a Master's thesis as well as presentation of the thesis in a lecture.		
Content of module	Final oral exam and composition of a Master's thesis as well as presentation of the thesis in a lecture. The final oral exam of 60 minutes duration will test two areas from the field of Computational Linguistics. The topics are decided by the examiner in consultation with the student. The Master's thesis is to be around 70-80 pages long with approx. 400 words per page; it must be completed within 4 months. The topic is chosen by the student from the spectrum of the student's computational linguistics research profile, in consultation with the supervisor. Students are given the opportunity to present their thesis project in a half-hour presentation.		
Goals	*Oral examination* Students must show that they have mastered their chosen special topic within its comprehensive context and that they are familiar with central issues in Computational Linguistics. They have broad knowledge of computational linguistics research areas and are able to make the relevant content and methodological connections in a dialogue with the examiner. With an outlook sharpened by their own specialized research, they can reflect on the breadth of the discipline. *Master's thesis:* In consultation with the supervisor, students can formulate a problem from their individual profile and competently place it in the context of computational linguistics research. They are able to process this problem independently and according to the academic methods of Computational Linguistics within the set time and to present the results in written form as if in Computational Linguistics journals. The order of the oral exam and the completion of the master thesis is determined by the examiner in consultation with the students.		

Requirements for the awarding of credit points/ grading (and weighting, where appropriate)	*Course*	*Class type*	*Credit hours in semester*	*LP*	*Assessment duration*	*Grading system*	*Calculation of module grade*
	Oral examination			*10*	*60 min.*	*b*	*1/3*
	Master's thesis	*MA*		*20*	*4 months*	*b*	*2/3*

■ *M.A. Computational Linguistics*

Serves as:	Stepping-stone to doctoral studies, career
Requirements for admission	Successful completion of 90 ECTS from the modules ISCL-MA-01 to ISCL-MA-06, in which at least three written assignments must have been completed.