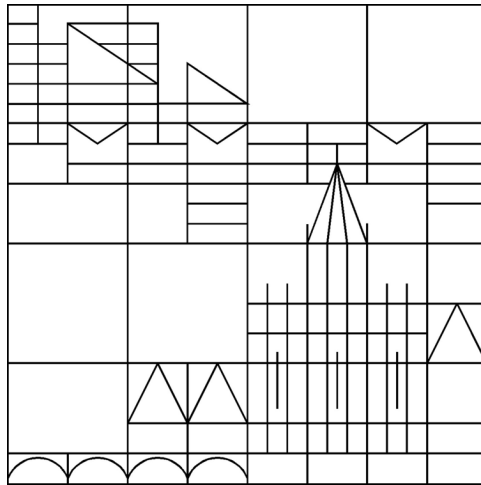# University of Konstanz

Faculty of Humanities

Department of Linguistics

Module Handbook

for the

Master's Programme in *Speech and Language Processing*

June 2019

Contents

I. General Information

Participants in the Master's Programme *Speech and Language Processing (SLP)* acquire knowledge and skills to deal with theoretical and practical/applied aspects of human and machine language processing. Human and machine language processing are related in terms of understanding fundamental properties of language and how these can be represented, modelled and manipulated. Insights from human language processing (HLP) inform machine language processing (MLP) and vice versa. However, HLP has a greater relevance for psycholinguistic and neurolinguistic models of language and applications in cognitive research and treatments, whereas MLP is more relevant for computational models and applications in the area of digital technology. In view of our increasingly global and digital society, understanding models of language processing from both a theoretical and applied perspective has become more crucial than ever. The skills and abilities acquired as part of this Master programmer can be used to build either an academic career or as the foundation for practical, application oriented work outside of academia.

II. Targeted Qualifications

Specialized goals of the Programme
Participants become acquainted with current and foundational research in HLP and MLP. In HLP this includes work within psycholinguistics (including language acquisition) and neurolinguistics. In MLP this includes symbolic and statistical models for language processing. After having acquired foundational knowledge in both areas, students are expected to deepen their studies in either HLP or MLP. The intention is to make students aware of underlying commonalities in HLP and MLP and of issues of language processing in general, but then to let students diverge in their interests. Students more interested in experimental work will follow the HLP track and learn practical experimental methodology as part of this track. Students more interested in computational applications will follow the MLP track and learn practical programming and software engineering as part of this track.

General goals of the Programme
Working in the specialized field of language processing, participants furthermore develop the following, non-specialized skills:
- They can follow presentations of complex material.
- They can critically analyse various forms of texts and presentations.
- They can present specialized subject matter to non-specialists in an understandable way.
- They can construct logically coherent arguments.

- They can analyse, manage and visualize complex data.
- They can extract the essential points from a complex assemblage of information.
- They can work independently and can articulate an original research question.
- They can apply knowledge about language processing to actual problems outside of academic settings.

III. Outline of the Master's Programme in Speech and Language Processing

For the Master's Programme *Speech and Language Processing*, 120 ECTS[1] credits (cr) must be earned, of which 102 cr shall be obtained in the core areas and 18 cr in a supplementary area (Module 7). There are two tracks within the Master's Programme: Human Language Processing (HLP) and Machine Language Processing (MLP). Core foundational and methodological courses are shared across the tracks, but students are expected to emphasize either the HLP or the MLP track by choosing a majority of courses within that track. Recommendations for each track are set out clearly below. In both tracks, the courses focus on both theory and practice.

Acquiring competence in statistical methods and programming is required. Statistical methods are offered in Module 2. A programming language can be learned as part of Modules 2, 4 or 7.

Module 1: Core Areas of Linguistics, 18 cr

Lehrveranstaltung	P/WP	Art	PL	cr	ENR	Sem
Core Components of Language A	P	S	HA/KI/Ref/So	9	yes	1-2
Core Components of Language B	P	S	HA/KI/Ref/So	9	yes	1-2

This module contains theoretical linguistic courses that focus on the core areas of phonetics, phonology, morphology, syntax, semantics and pragmatics. Students are advised to take courses which reflect their interests. Students focusing on MLP are further advised to take a course that focuses on a computationally realistic theory of syntax. Currently a course meeting this requirement is one focusing on Lexical Functional Grammar (LFG).

The courses can be taken in any order. The module is completed when 18 cr from different module units have been earned.

Module 2: Methods, 12 cr

Lehrveranstaltung	P/WP	Art	PL	cr	ENR	Sem
Statistics	P	S	KI	6	yes	1-2
Experimental Methods	WP	S	var	6	yes	1-2

---

[1] Explanations of the abbreviations:
ECTS = European Credit Transfer System; P/WP = required/elective; Art = type of course (with VL = lecture, Sem = seminar; Ü = practice tutorial); PL = performance assessment (with HA = term paper; KI = written exam; Ref = oral presentation; So = other form of written/oral performance assessment; var = variable: the performance assessment will be announced by the instructor at the beginning of the course); SL = coursework; cr = ECTS credits; ENR = relevant for final grade; Sem = semester in which the course is offered.

Lehrveranstaltung	P/WP	Art	PL	cr	ENR	Sem
Text Processing/Corpus linguistics (e.g., with Perl/Python)	WP	Sem	var	6	yes	1-2
Further current linguistic methodology (e.g., logic, language documentation)	WP	Sem	var	6	yes	1-2

Module 2 provides students with the necessary methodological competence for research into language processing. All students must take statistics. Students pursuing the HLP track are advised to additionally take experimental methods in order to learn how to set up an experiment. Students pursuing the MLP track are advised to additionally take the text processing course in order to learn a programming language. The module is completed when 12 cr from different module units have been earned.

Module 3: Foundations, 18 cr

Lehrveranstaltung	P/WP	Art	PL	cr	ENR	Sem
Machine Language Processing	P	S	HA/Kl/Ref/So	9	yes	1-2
Human Language Processing	P	S	HA/Kl/Ref/So	9	yes	1-2

This module teaches students foundational results in the areas of MLP and HLP and provides them with an overview of the current state of the art. The module is completed when 18 cr have been earned, i.e. 9 cr per unit.

Module 4: Machine Language Processing, 18/9 cr

Lehrveranstaltung	P/WP	Art	PL	cr	ENR	Sem
Grammar Development	WP	S	HA/Kl/Ref/So	9	yes	2-3
Computational Semantics	WP	S	HA/Kl/Ref/So	9	yes	2-3
Topics in Current Research	WP	S	HA/Kl/Ref/So	9	yes	2-3

This module dives deeper into issues within MLP. Students pursuing the MLP track have completed this module when 18 cr have been earned from different module units. Students pursuing the HLP track have completed this module when 9 cr have been earned.

Module 5: Human Language Processing, 18/9 cr

Lehrveranstaltung	P/WP	Art	PL	cr	ENR	Sem
Language Acquisition	WP	S	HA/Kl/Ref/So	9	yes	2-3
Psycholinguistics	WP	S	HA/Kl/Ref/So	9	yes	2-3
Neurolinguistics	WP	S	HA/Kl/Ref/So	9	yes	2-3

Topics in Current Research	WP	Sem	HA/Kl/Ref/So	9	yes	2-3

This module dives deeper into issues within HLP. Students pursuing the MLP track have completed this module when 9 cr have been earned. Students pursuing the HLP track have completed this module when 18 cr have been earned from different module units.

Module 6: Practical/Experimental Applications and Research, 6 cr

Lehrveranstaltung	P/WP	Art	StL	cr	ENR	Sem
Research Seminar	P	S	Ref/So	3	no	3-4
Practical/Experimental Research or Internship	P	S	PB	3	no	3-4

Students are given the chance to pursue independent research in this module and to conduct practical or application oriented work. The module is completed when 6 cr have been earned.

Module 7: Neighboring Areas, 18 cr

Lehrveranstaltung	P/WP	Art	StL	cr	ENR	Sem
Linguistics	WP	S	var	3-18	no	1-4
Related disciplines (e.g., Computer Science, Psychology, Philosophy)	WP	S/VL	var	3-18	no	1-4
Language Courses or Key Qualifications	WP	Ü	var	max. 6	no	1-4

This module extends the interdisciplinary dimension of the programme. Students are given the opportunity to take relevant courses in other master's programmes in linguistics or in other areas, or to learn a foreign language or acquire further key skills. Courses from Computer Science, Mathematics, Philosophy and Psychology would be particularly relevant. The module is completed when 18 cr have been earned.

Module 8: Master's Thesis and Oral Examination, 21 cr

Leistung	P/WP	Art	PL/SL	cr	ENR	Sem
Thesis	P		Master's thesis	18	yes	4
Oral Examination	P		Oral examination	3	yes	4

Successful completion of the master thesis and the oral examination are the final module of the programme. The module is completed when 21 cr have been earned.

IV. Module Descriptions

Module 1: Core Areas of Linguistics

Applicability				Module Title	
MA Speech and Language Processing				Module 1: Core Areas of Linguistics	
Credits	18	**Duration**	2 semesters	**Module Contribution to the Final Grade**	18,75 %
Module Grade	The grade for the module from the arithmetic mean of the two module grades, weighted according to ECTS credits from each of the two module sections.				
Module Sections	Core Components of Language A (Phonetics, Phonology or Morphology) Core Components of Language B (Syntax, Semantics or Pragmatics)				
Learning Outcomes	Students work on topics within the core components of grammar (phonetics, phonology, morphology, syntax, semantics, and pragmatics). They become familiar with foundational and current theoretical linguistic analyses and are able to independently pursue research in the core area.				

Module Section: Core Components of Language A	
Lecturer	academic staff
Content of Teaching	This module section deals primarily with phonetics, phonology, morphology, and their interfaces. Students become familiar with foundational and current theoretical linguistic analyses and core empirical phenomena and are able to independently pursue research in the chosen core area.
Teaching Methods/ Hours per Week	seminar / 2 hours
Workload	270 hours
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	winter semester and summer semester
Recommended Semester	1 or 2

Compulsory / Optional	compulsory

Module Section: Core Components of Language B	
Lecturer	academic staff
Content of Teaching	This module section deals primarily with syntax, semantics, pragmatics, and their interfaces. Students become familiar with foundational and current theoretical linguistic analyses and core empirical phenomena and are able to independently pursue research in the chosen core area.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	winter semester and summer semester
Recommended Semester	1 or 2
Compulsory / Optional	compulsory

Module 2: Methods

Applicability				**Module Title**	
MA Speech and Language Processing				Module 2: Methods	
Credits	12	**Duration**	2 semesters	**Module Contribution to the Final Grade**	12,5 %
Module Grade	The grade for the module is the arithmetic mean of the two module grades, weighted according to ECTS credits, from each of the two module sections.				
Module Sections	Statistics Experimental Methods Text Processing/Corpus Linguistics				

	Further Current Linguistic Methodology
Learning Outcomes	Students become competent in state-of-the art methodology in language processing. This includes quantitative methods and statistics to analyse linguistic data and the learning of a programming language for automatic text processing.

Module Section: Statistics	
Lecturer	Bettina Braun, Carsten Eulitz or N.N.
Content of Teaching	Students are introduced to statistical methodology relevant in particular for understanding language processing research. This includes the analysis of dependent and independent variables, classic parametric and non-parametric tests, single and multifactorial analyses and hierarchical regression models. The course content provides information and methodological competence. Given the current state of the art, it is near to impossible to do meaningful work within language processing without this methodological competence and this course provides the necessary knowledge including the usage of common software packages.
Teaching Methods / Hours per Week	seminar / 3 hours
Workload	180 hours of which 45 hours are the actual course, 115 hours are concerned with course work and 20 hours constitute the preparation time for the exam
Credits	6
Type of Assessment	exam; oral presentations, written exercises
Recommended Background	---
Language	English or German
Frequency Offered	winter semester
Recommended Semester	1 or 2
Compulsory / Optional	compulsory

Module Section: Experimental Methods	
Lecturer	Bettina Braun, Carsten Eulitz or Tanja Kupisch
Content of Teaching	This course covers quantitative, qualitative, and experimental methods in research on human language processing. Students will be introduced to and

	familiarized with data elicitation and collection methods and psycholinguistic and neurolinguistic methodology with respect to language production and processing. Students will learn how to design and conduct their own experiment as a result of this course. This course is highly recommended for students pursuing the HLP track as it teaches a core skill relevant for HLP research.
Teaching Methods / Hours per Week	seminar / 3 hours
Workload	180 hours of which 45 hours are the actual course, 115 hours are concerned with course work and 20 hours constitute the preparation time for the exam
Credits	6
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English
Frequency Offered	winter semester
Recommended Semester	1 or 2
Compulsory / Optional	optional

Module Section: Text Processing/Corpus Linguistics	
Lecturer	Miriam Butt or N.N.
Content of Teaching	In this course students learn how to extract linguistic information from a text/corpus via a programming language that is particularly suited for this task (e.g., Perl or Python). Students learn programming skills and apply these towards working with text language corpora. At the end of the course, students are able to write programs independently and extract relevant information from a text/corpus in order to solve a research question. This course is highly recommended for students pursuing the MLP track as it teaches a core skill relevant for MLP research.
Teaching Methods / Hours per Week	seminar / 3 hours
Workload	180 hours of which 45 hours are the actual course, 135 hours are concerned with course work and the programming of an independent project

Credits	6
Type of Assessment	written exercises and a final project
Recommended Background	---
Language	English or German
Frequency Offered	summer semester
Recommended Semester	1 or 2
Compulsory / Optional	optional

Module Section: Further Current Linguistics Methodology	
Lecturer	academic staff
Content of Teaching	This module unit introduces further linguistic methodology. Topics may vary and include areas such as logic, language documentation or Praat scripting.
Teaching Methods / Hours per Week	seminar / 3 hours
Workload	180 hours of which 45 hours are the actual course, 115 hours are concerned with course work and 20 hours constitute the preparation time for the exam
Credits	6
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	winter semester
Recommended Semester	1 or 2
Compulsory / Optional	optional

Module 3: Foundations

Applicability				Module Title	
MA Speech and Language Processing				Module 3: Foundations	
Credits	18	**Duration**	2 semesters	**Module Contribution to the Final Grade**	18,75 %
Module Grade	The grade for the module is the arithmetic mean of the grade for each of the two module sections, weighted according to ECTS credits.				
Module Sections	Machine Language Processing Human Language Processing				
Learning Outcomes	Students are provided with an overview of the most important foundational and current topics within human and machine language processing.				

Module Section: Machine Language Processing	
Lecturer	Miriam Butt or N. N.
Content of Teaching	Current and classic topics within natural language processing are discussed. This includes speech and text processing and an overview of symbolic and statistical approaches that have been used to build applications such as speech recognition systems, morphological analyzers, part-of-speech taggers, parsers and generators, semantic analysis systems and dialog systems.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours are needed for exam preparation
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	winter semester
Recommended Semester	1 or 2
Compulsory / Optional	compulsory

Module Section: Human Language Processing	
Lecturer	Carsten Eulitz or N. N.
Content of Teaching	Current and classic topics within human language processing are discussed. This includes speech perception, speech production and language acquisition. Results and insights from both psycholinguistics and neurolinguistics are considered. At the end of the course, students should be knowlegeable about foundational research and current debates within human language processing.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours are needed for exam preparation
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	summer semester
Recommended Semester	1 or 2
Compulsory / Optional	compulsory

Module 4: Machine Language Processing

Applicability				Module Title	
MA Speech and Language Processing				Module 4: Machine Language Processing	
Credits	18/9	**Duration**	2 semesters	**Module Contribution to the Final Grade**	18,75 %/ 9,4 %
Module Grade	The grade for the module is the arithmetic mean of the grade for each of the two module sections, weighted according to ECTS credits.				
Module Section	Grammar Development Computational Semantics Topics in Current Research				

Learning Outcomes	Students gain a deeper understanding of research in machine language processing and learn how to write software that can parse and generate language with respect to morphology, syntax and semantics.

Module Section: Grammar Development	
Lecturer	Miriam Butt or N. N.
Content of Teaching	The course introduces students to grammar development and teaches students to build a linguistically sophisticated parser and generator for a language of their choice.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours for the preparation of the final project
Credits	9
Type of Assessment	exercises and final project
Recommended Background	A course on Lexical Functional Grammar within Module 1
Language	English or German
Frequency Offered	summer semester
Recommended Semester	2 or 3
Compulsory / Optional	optional

Module Section: Computational Semantics	
Lecturer	Miriam Butt, Maribel Romero or N. N.
Content of Teaching	Students are introduced to first order logic as required by semantic processing. They learn how to express first order logic in the programming language Prolog and learn how to build semantic representations compositionally from parsed sentences. They also learn how to build a dialog system and the pitfalls involved in pragmatic and logic processing.
Teaching Methods / Hours per Week	seminar / 2 hours

Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours are needed for exam preparation
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	summer semester
Recommended Semester	2 or 3
Compulsory / Optional	optional

Module Section: Topics in Current Research	
Lecturer	Miriam Butt or N. N.
Content of Teaching	The course is concerned with specialized topics of current interest.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours are needed for preparation of exams/papers
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	(at least) once every four semesters
Recommended Semester	2 or 3
Compulsory / Optional	optional

Module 5: Human Language Processing

Applicability				Module Title	
MA Speech and Language Processing				Module 5: Human Language Processing	
Credits	18/9	**Duration**	2 semesters	**Module Contribution to the Final grade**	18,75 %/ 9,4 %
Module Grade	The grade for the module is the arithmetic mean of the grade for each of the two module sections, weighted according to ECTS credits.				
Module Sections	Language Acquisition Psycholinguistics Neurolinguistics Topics in Current Research				
Learning Outcomes	Students gain a deeper understanding of research in human language processing, including at different stages of development (child vs. adult) and as investigated from different methodological perspectives (psycholinguistic vs. neurolinguistic).				

Module Section: Language Acquisition	
Lecturer	Tanja Kupisch, Theodoros Marinis or N.N.
Content of Teaching	The course examines foundational and current language acquisition research, including results from multilingual acquisition. Students will read and discuss seminal papers. They will be familiarized with theoretical frameworks as well as empirical approaches.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours for the preparation of the exam
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	summer semester
Recommended Semester	2 or 3

Compulsory / Optional	optional

Module Section: Psycholinguistics	
Lecturer	Carsten Eulitz or N. N.
Content of Teaching	Current results and methods of psycholinguistic research are discussed and presented in this course. Students become familiar with the intricacies of the research questions and the methodology by conducting similar experiments. A particular focus is placed on reaction time experiments that have been used to investigate child language acquisition and human processing of both text and speech.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work including the experimental work and 60 hours for the preparation of the exam
Credits	9
Type of Assessment	variable: presentations, experiments, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	winter semester
Recommended Semester	2 or 3
Compulsory / Optional	optional

Module Section: Neurolinguistics	
Lecturer	Carsten Eulitz or N. N.
Content of Teaching	Current results and methods of neurolinguistic research are discussed and presented in this course. Students read advanced papers and study theoretical frameworks and empirical studies. A particular focus is placed on models of language perception and language production. Hypotheses are developed for

	targeted research questions and are evaluated via experimental work which includes the design and execution of experiments in group work.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work including the experimental work and 60 hours for the preparation of the exam
Credits	9
Type of Assessment	variable: presentations, experiments, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	winter semester
Recommended Semester	2 or 3
Compulsory / Optional	optional

Module Section: Topics in Current Research	
Lecturer	Carsten Eulitz or N. N.
Content of Teaching	The course is concerned with specialized topics of current interest.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	270 hours of which 30 are the actual course, 180 are needed for the course work and 60 hours are needed for preparation of exams/papers
Credits	9
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	English or German
Frequency Offered	(at least) once every four semesters

Recommended Semester	2 or 3
Compulsory / Optional	optional

Module 6: Practical/Experimental Applications and Research

Applicability				**Module Title**	
MA Speech and Language Processing				Module 5: Practical/Experimental Applications and Research	
Credits	6	**Duration**	2 semesters	**Module Contribution to the Final Grade**	---
Module Grade	The module is not relevant for the final grade.				
Module Sections	Research Colloquium Practical/Experimental Research or Internship				
Learning Outcomes	This module offers students the opportunity to identify their own research questions and to conduct an experiment or a computational project to answer the research question. The module is intended as a preparation for the writing of the Master's thesis. It also offers them the opportunity to gain practical/applied experience in an on-going project either at an institution external to the university or within on-going projects at the university.				

Module Section: Research Colloquium	
Lecturer	academic staff
Content of Teaching	The research seminar is designed for advanced students within the master programme. The course focuses on the latest research language processing. Students review research papers and formulate research questions of their own, discuss methodology and plan their own experiments or projects.
Teaching Methods / Hours per Week	seminar / 2 hours
Workload	90 hours of which 30 are the actual course and 60 are needed for the course work
Credits	3
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning

Recommended Background	modules 1 – 5
Language	English or German
Frequency Offered	winter semester or summer semester
Recommended Semester	3 or 4
Compulsory / Optional	compulsory

Module Section: Practical/Experimental Research or Internship	
Lecturer	academic staff or N.N.
	In this module unit students can elect to conduct an independent experiment or a computational project under the supervision of an academic staff member at the university. Or they can elect to pursue an internship outside of the university and gain experience with practical/applied work in a non-academic setting. In either case, it is recommended that the work pursued could be used as preparatory for the Master's thesis.
Content of Teaching	---
Teaching Methods / Hours per Week	variable
Workload	90 hours
Credits	3
Type of Assessment	A certified internship report must be submitted.
Language	variable
Recommended Background	---
Frequency Offered	winter semester or summer semester
Recommended Semester	3 or 4
Compulsory / Optional	compulsory

Module 7: Neighboring Areas

Applicability				Module Title	
MA Speech and Language Processing				Module 7: Neighboring Areas	
Credits	18	**Duration**	4 semesters	**Module Contribution to the Final Grade**	---
Module Grade	The module is not relevant for the final grade.				
Module Sections	Linguistics Related Disciplines (e.g., Computer Science, Psychology, Philosophy) Language Courses and Key Qualifications				
Learning Outcomes	This module extends the interdisciplinarity of the programme. Students can elect to take courses in an area of interest or can decide to increase their skill set by taking language courses or courses in key skills such as statistics, programming, academic writing, etc.				

Module Sections: Linguistics	
Lecturer	academic staff
Content of Teaching	Students attend relevant seminars from other linguistic master courses that are of interest to them.
Teaching Methods / Hours per Week	variable
Workload	variable
Credits	3-18
Type of Assessment	variable: presentations, examinations and papers required for successful completion of the course are announced at the beginning
Recommended Background	---
Language	variable
Frequency Offered	winter semester and summer semester
Recommended Semester	1 to 4
Compulsory / Optional	optional

Module Sections: Related Disciplines	
Lecturer	academic staff
Content of Teaching	Students attend relevant seminars academic subjects of their interest. Particularly relevant for language processing are courses from Computer Science, Mathematics, Statistics, Philosophy and Psychology.
Teaching Methods / Hours per Week	variable
Workload	variable
Credits	3-18
Type of Assessment	variable
Recommended Background	---
Language	variable
Frequency Offered	winter semester and summer semester
Recommended Semester	1 to 4
Compulsory / Optional	optional

Module Sections: Language Courses and Key Qualifications	
Lecturer	variable
Content of Teaching	Students attend courses which allow them to learn a foreign language or to add to their key qualifications/skill sets such as statistics, programming, academic writing, etc.
Teaching Methods / Hours per Week	as is common practice in the respective department or institute
Workload	variable
Credits	max. 6
Type of Assessment	variable
Recommended Background	---
Language	variable

Frequency Offered	winter semester and summer semester
Recommended Semester	1 to 4
Compulsory / Optional	optional

Module 8: Master's Thesis and Oral Examination

Applicability				Module Title	
MA Speech and Language Processing				Module 8: Master's Thesis and Oral Examination	
Credits	21	Duration	1 semester	Module Contribution to the Final Grade	21,8 %
Module Grade	The master's thesis counts three times, the oral exam once for the final grade in this module.				
Module Sections	Master's Thesis Oral Examination				
Learning Outcomes	In this module, students should show that they can apply the knowledge, the methodological competence and skill sets acquired in course of their studies.				

Module Section: Master's thesis	
Lecturer	academic staff
Content of Teaching	The master's thesis is written.
Teaching Methods / Hours per Week	---
Workload	4 months for the master thesis, 50-60 pages
Credits	18
Type of Assessment	Master's thesis
Recommended Background	50 % of the examination credits
Language	English or German

Frequency Offered	winter semester and summer semester
Recommended Semester	4
Compulsory / Optional	compulsory

Module Section: Oral examination	
Lecturer	academic staff
Content of Teaching	colloquium on the master's thesis
Teaching Methods / Hours per Week	colloquium / 2 hours
Workload	90 hours
Credits	3
Type of Assessment	oral examination
Recommended Background	all coursework and examinations
Language	English or German
Frequency Offered	winter semester and summer semester
Recommended Semester	4
Compulsory / Optional	compulsory