

## Introduction – Counselling services

This module handbook presents the modules of the Linguistic Data Science programme. In order to successfully complete the Master's programme, students must complete the courses of all mandatory modules and selected courses of the elective modules. In the curriculum, these modules are assigned to semesters according to a standard study plan. Deviations from this allocation are possible in the individual study plan and can be useful, for example, in the case of a planned stay abroad.

If you have any questions about the module handbook, study planning or study organisation, you can contact the academic advisor of the programme. They will also advise you on the choice of courses for Core Modules 1 and 2, in each of which you will be required to give a presentation and complete a written assignment. You will find the appropriate contact persons and further information at: <https://ldsl.rub.de/study-linguistic-data-science/for-students/academic-advisory-office>

For subject-related questions, you should contact the lecturers of the respective course directly – if a module is not offered in the current or coming semester, you can also contact the study coordination first to find the appropriate contact person.

You can also find an initial overview of helpful addresses on other counselling topics here:

Central Student Advisory Service – for help and support with individual issues before or during studies, such as illness, orientation or motivation difficulties or other psychological problems:

<https://www.ruhr-uni-bochum.de/zsb/>

Student Finance Advisory Service – for questions about student finance, for example, through BAFöG:

<https://studium.ruhr-uni-bochum.de/de/studienfinanzierung>

Advisory Centre for the Inclusion of Disabled People:

<https://www.akafoe.de/inklusion/>

International Office:

<http://www.international.rub.de/ausland/index.html.de>

Living in a student hall of residence:

<https://www.akafoe.de/wohnen/>

# Curriculum

## Graphic

	Semester	Semester	Semester	Semester	
CP	25 CP	35 CP	30 CP	30 CP	
1	<b>Computational Linguistics</b>		<b>Core Module 2</b>	<b>Master's thesis</b> 20 CP	
2	12 CP				9 CP
3					Advanced Course
4	Introduction to CL (with Python)	Computational Linguistics and AI	Advanced Course		
5			Advanced Course		
6	<b>Linguistic Data Science</b>				
7	12 CP				
8					
9	Introduction to Linguistic Models (with R)	Linguistic Data Science			
10					
11	<b>11 CP</b>		<b>Core Module 1</b>		
12			9 CP		
13		Advanced Course	Advanced Course		
14		Advanced Course	Advanced Course		
15					
16	<b>5 CP</b>		<b>Research Module 2</b>		
17	<b>Supplementary Module</b>			21 CP	
18	16 CP				
19					
20					
21			<b>Research Module 1</b>		
22				21 CP	
23				Preparatory Seminar Project Management	
24			Research Project 2		
25					
26					
27					
28			Research Project 1		
29			Project Closing Seminar		
30			Colloquium 2		
31					
32					
33			Colloquium 1		
34					
35					

## Tabular

Abbreviation	Module	Courses	Scope (CP)	Recommended semester	Evaluation
BM CL	Base Module Computational Linguistics	Base course <i>Introduction to CL (with Python)</i> Base course <i>Computational Linguistics and AI</i>	12	1-2	Graded exam
BM LDS	Base Module Linguistic Data Science	Base course <i>Introduction to Linguistic Models (with R)</i> Base course <i>Linguistic Data Science</i>	12	1-2	Graded exam
CM 1 TSP	Core Module 1: Theoretical Linguistics	Three seminars/advanced courses from the elective programme, two of them with a focus on Theoretical Linguistics	9	2-3	Graded examination achievement in a seminar
CM 1 CL	Core Module 1: Computational Linguistics	Three seminars/advanced courses from the elective programme, two of them with a focus on Computational Linguistics	9	2-3	Graded examination achievement in a seminar
CM 1 LDS	Core Module 1: Linguistic Data Science	Three seminars/advanced courses from the elective programme, two of them with a focus on Linguistic Data Science	9	2-3	Graded examination achievement in a seminar
CM 2 TSP	Core Module 2: Theoretical Linguistics	Three seminars/advanced courses from the elective programme, two of them with a focus on Theoretical Linguistics	9	3	Graded examination achievement in a seminar
CM 2 CL	Core Module 2: Computational Linguistics	Three seminars/advanced courses from the elective programme, two of them with a focus on Computational Linguistics	9	3	Graded examination achievement in a seminar
CM 2 LDS	Core Module 2: Linguistic Data Science	Three seminars/advanced courses from the elective programme, two of them with a focus on Linguistic Data Science	9	3	Graded examination achievement in a seminar
RM 1	Research Module 1	<i>Preparatory Seminar Project Management</i> <i>Research Project 1</i> <i>Colloquium 1</i>	21	2-3	Graded presentation in the colloquium
RM 2	Research Module 2	<i>Research Project 2</i> <i>Project Closing Seminar</i> <i>Colloquium 2</i>	21	3-4	Graded presentation in the colloquium
MA	Master's thesis	Master's thesis	20	4	Graded written Master's thesis

SM	Supplementary Module	Various courses from the UA Ruhr teaching programme	16	1-2	Ungraded
----	----------------------	---	----	-----	----------

## The modularisation concept

The **Supplementary Module** is composed of different courses that students can choose after an **individual consultation session with the academic advisor**, in order to strengthen their personal profile or to acquire basic competencies that will facilitate their further studies.

The two **Base Modules** *Computational Linguistics* and *Linguistic Data Science* in the first year of study lay the foundations for further studies: the knowledge from the three focus areas of study, Theoretical Linguistics, Computational Linguistics and Linguistic Data Science, as well as programming skills in the languages Python and R. Students acquire competencies in problem-solving work alone and in groups.

The **Core Modules** are focus modules, each consisting of three *Advanced Courses*. These courses, each of which can be assigned to one of the three focus areas, are small seminars. By choosing the seminars, students decide on a variant of the core modules: Modules on one focus area consist of at least two seminars from that focus area. The focus area allocation of the seminars offered in a semester is published in the course catalogue and on the programme's website.

The **Research Modules** consist of research projects that students work on individually or in groups. In doing so, students acquire competencies for problem-solving project work, which are deepened through accompanying seminars. In an accompanying colloquium, students share experiences and learning successes, as well as failures and coping strategies across the year, and learn to present scientific questions and projects and to follow up on presentations.

In the **Master Module**, students write a Master's thesis.

Calculation of the overall grade

Module	CP	Graded final module examination	Factor
<b>Base Module Linguistic Data Science</b>	12	Written examination	5 %
<b>Base Module Computational Linguistics</b>	12	Written examination	5 %
<b>Core Module 1</b>	9	Diverse	12.5 %
<b>Core Module 2</b>	9	Diverse	12.5 %
<b>Research Module 1</b>	21	Lecture in colloquium 1	17.5 %
<b>Research Module 2</b>	21	Lecture in colloquium 2	17.5 %
<b>Master's thesis</b>	20	Master's thesis	30 %

The accomplishments gained in the Supplementary Module do not count towards the overall grade.

Instead of the overall grade of "very good", the grade "with distinction" is awarded if the Master's thesis is assessed with 1.0 and the overall grade is not worse than 1.3.

## Forms of examination and notes from the examination regulations

In order to complete a module, students must complete examinations and, in some cases, study achievements for the various modules.

Study achievements are, for example, presentations, assignments, practical exercises, written or oral performance reviews, lectures or protocols. A study achievement can be graded or assessed as “passed” or “failed”.

In some modules, students must successfully complete the study achievements before they can take the module examination. This is to ensure that students only attempt to take the exam if they have already worked intensively on the content of the course. In some modules, the study achievement is also intended to ensure that only students with the necessary prior knowledge work together on a follow-up project. This way, all members of a group can be sure that the others can also cooperate.

Module examinations are written or oral examinations. They are generally taken during the programme by means of written, oral or electronic examinations, or examinations in electronic communication. Examples of examination forms are written examinations, exercise solutions, presentations, seminar designs, assignments, project work, portfolios, poster or project presentations and subject-specific practical examinations. Examinations may also be a combination of these forms of examination. The examiners responsible in each case can determine other forms of examination appropriate to the content and competencies taught in the module. Which form of examination applies in a course will be announced no later than two weeks after the start of the course.

In principle, only means that are mentioned in the module handbook or have been approved by the examiner for the examination at least four weeks before the examination are permitted in an examination.

In oral examinations, students either present prepared content or are asked questions on the topics of a course, which they have to answer. These questions can cover course content or represent small transfer tasks – for example, students perform an algorithm on a concrete example on paper or on a whiteboard, or assess the advantages and disadvantages of different models.

In all examinations, the independence of the completed achievements is important. This also applies to group projects: the documentation of the work must make it clear what part all members of the group had in the solution.

All students should take the time to carefully read the examination regulations for their programme to understand its requirements and options. Most questions can be answered by the academic advisor of the programme.

## Modules

<b>Base Module: Computational Linguistics</b>					
<b>Module no./Abbreviation</b>	<b>Credits</b>	<b>Workload</b>	<b>Semester</b>	<b>Cycle</b>	<b>Duration</b>
BM CL	12 CP	360 h	1st-2nd sem.	Start in the winter semester	2 semesters
<b>Courses</b>			<b>Contact time</b>	<b>Self-study</b>	<b>Group size</b>
a) Base course Introduction to CL (with Python) with exercise			4 SWS / 60 h	150 h	any
b) Base course Computational Linguistics and AI with exercise			4 SWS / 60 h	150 h	
<b>Participation requirements</b>					
None					
<b>Learning outcomes</b>					
<ul style="list-style-type: none"> <li>• The students know basic and current computational linguistic theories, models and methods (and can apply them critically to questions and problems).</li> <li>• They are able to make well-founded decisions for a concrete use case when choosing data types and modules/functions.</li> <li>• They understand their role as contributors with expertise in Linguistic Data Science and Computational Linguistics as distinct from others working in pure Linguistics or Computer Science. They recognise connections between computational linguistics and linguistic data science.</li> <li>• They become familiar with the technical language used in describing programmes through requirements descriptions and comments and can express themselves well in writing and orally on the topics covered.</li> <li>• They understand some basic evaluation methods and can apply them to small example cases.</li> <li>• They can discuss small subject-specific problems with others and solve them together.</li> <li>• They are confident in the use of Python and can write programmes that fulfil individual functions, as well as programmes that combine several modules/functions.</li> </ul>					
<b>Content</b>					
<p>The module offers an introduction to the usual procedures, methods and models, as well as theories of computational linguistics (such as the pipelining of language data, parsing algorithms, machine learning and neural networks) and an in-depth insight into methods from the field of "artificial intelligence", which are widely used and require a good understanding of the basics in order to be further developed and applied in computational linguistics as well. Programmes and solutions are placed in the overall context of research and development by also introducing evaluation procedures (and concepts such as reliability, dependability, accuracy) and development paradigms (especially imperative, functional and object-oriented programming).</p> <p>In addition, the courses point out inherent pitfalls in dealing with linguistic problems through the use of algorithms and programmes, which can lead to discriminatory bias, for example.</p> <p>Exercises for the courses are small tasks on the respective course topic, which students work on in groups or alone, also online.</p>					
<b>Forms of teaching</b>					
Both courses consist of an in-person attendance component (lecture by the lecturer in the plenum with subsequent discussion, joint solving of tasks) and programming exercises for the course.					
<b>Forms of examination</b>					
The module is completed in the summer semester by a <b>graded written examination</b> .					
<b>Requirements for the award of credit points</b>					
<ul style="list-style-type: none"> <li>• Passed final module exam</li> <li>• Study achievement in the form of successful participation. For this purpose, in the exercise accompanying the lecture, tasks are worked on in self-study for each base course, checked by exercise group leaders and presented and discussed by the students in small groups. Successful participation in an exercise usually requires the correct completion of 50% of the tasks and the presentation of solutions in the group.</li> <li>• Passing of the final exam for the first lecture.</li> </ul>					
<b>Use of the module</b> (in other programmes)					
None					
<b>Importance of the grade for the final grade: 5 %</b>					
<b>Person responsible for the module and full-time lecturer: Dr. Claudia Roch, Mirjam Koch, M. Sc.</b>					
<b>Other information</b>					
In order to present the exercises in the tutorials, the lecturers may require the students to attend sessions.					

Base Module: "Linguistic Data Science"					
Module no./Abbreviation	Credits	Workload	Semester	Cycle	Duration
BM LDS	12 CP	360 h	1st-2nd sem.	Start in the winter semester	2 semesters
<b>Courses</b>			<b>Contact time</b>	<b>Self-study</b>	<b>Group size</b>
c) Base course Introduction to Linguistic Models (with R) with exercise			4 SWS / 60 h	150 h	any
d) Base course Linguistic Data Science with exercise			4 SWS / 60 h	150 h	
<b>Participation requirements</b>					
None					
<b>Learning outcomes</b>					
<ul style="list-style-type: none"> <li>• Students know basic theories, models and methods of Linguistic Data Science and can apply them critically to questions and problems.</li> <li>• They are familiar with the technical language and are able to express themselves well in writing and orally on the topics covered.</li> <li>• They understand the position of Linguistic Data Science in distinction to related subjects such as pure linguistics or general Data Science and possess an initial overview of possible specialisations in distinction to computational linguistics and theoretical linguistics.</li> <li>• They understand some basic evaluation methods and can apply them to small example cases.</li> <li>• They demonstrate the influence of decisions in the choice of data sets, data types or the structure of experiments on data in simple examples.</li> <li>• They can discuss small subject-specific problems with others and solve them together.</li> <li>• They are confident in using the programming language R and can write programmes that fulfil individual functions, as well as programmes that combine several modules/functions.</li> </ul>					
<b>Content</b>					
<p>The module offers an introduction to the procedures, methods and models, as well as theories from the field of Linguistic Data Science, along with an in-depth insight into appropriate modelling and model development in linguistics. In addition to evaluation procedures for models and data sets, development procedures and project design are presented.</p> <p>The content of the module focuses on the step-by-step teaching of increasingly complex linear models, up to Generalised Linear Mixed Models for binomial and Poisson distributed samples with complex <i>random effects</i>. Fundamental differences in the evaluation of data will be addressed depending on how the data was obtained (corpus analyses, experimental studies, simulations). Students also learn that there are fundamental differences in inferential approaches (frequentist approaches vs. Bayesian approaches).</p> <p>In both courses, students learn about possible biases due to the choice of data sets, data types or the structure of experiments and how to avoid them.</p> <p>In the exercises, students work on small tasks in groups or individually.</p>					
<b>Forms of teaching</b>					
Both courses consist of an attendance component (lecture by the teachers in the plenum with subsequent discussion, joint solving of tasks) and exercises for the course. The exercises, in particular, can be offered as e-learning units.					
<b>Forms of examination</b>					
The module is completed in the summer semester by a <b>graded written examination</b> .					
<b>Requirements for the award of credit points</b>					
<ul style="list-style-type: none"> <li>• Passed final module exam</li> <li>• Study achievement in the form of successful participatio. For this purpose, in the exercise accompanying the lecture, tasks are worked on in self-study for each base course, checked by exercise group leaders and presented and discussed by the students in small groups. Successful participation in an exercise usually requires the correct completion of 50% of the tasks and the presentation of solutions in the group.</li> <li>• Passing of the final exam for the first lecture.</li> </ul>					
<b>Use of the module</b> (in other programmes)					
None					
<b>Importance of the grade for the final grade: 5 %</b>					
<b>Person responsible for the module and full-time lecturer:</b> Prof. Dr. Tibor Kiss					
<b>Other information</b>					
In order to present the exercises in the tutorials, the lecturers may require the students to attend sessions.					





<b>Core Module 1: Focus on Theoretical Linguistics</b>					
<b>Module no./Abbreviation</b>	<b>Credits</b>	<b>Workload</b>	<b>Semester</b>	<b>Cycle</b>	<b>Duration</b>
CM 1	9	270 h	2nd/3rd sem.	Courses are offered every semester	1-2 semesters
<b>Courses</b>			<b>Contact time</b>	<b>Self-study</b>	<b>Group size</b>
3 Advanced Course/Seminar			2 SWS each	180 h	any
<b>Participation requirements</b>					
None					
<b>Learning outcomes</b>					
<ul style="list-style-type: none"> <li>• Students are able to adequately formulate smaller problems in theoretical linguistics.</li> <li>• They understand that there is no single right answer in many areas and can constructively exchange ideas with others about possible solutions and gauge the advantages and disadvantages of different perspectives.</li> <li>• Students know advanced linguistic theories and can apply them critically to questions and problems.</li> <li>• They are familiar with specialist literature and know reference works in the subject area.</li> <li>• They can discuss theories critically with others.</li> <li>• They gain an initial insight into historical influences on theories and approaches and can recognise the need for adaptation in new areas</li> </ul>					
<b>Content</b>					
In seminars on the focus area of Theoretical Linguistics, students learn about issues and theories from areas such as pragmatics, syntax and morphology. They deal with specific questions or problem areas in more detail. These include linguistic resources, theoretical problems between syntax and semantics (scope, countability, control), offline vs. online methods of experimental linguistics with a focus on syntax and semantics, drawing on linguistic models to annotate corpora, teaching models within generative and constraint-based grammar theory and linked questions of methodology (acceptability, grammaticality, intuition) up to the study of language in (online) gaming or speaker modelling in game theory.					
<b>Forms of teaching</b>					
The module consists of three seminars in which different forms of learning are used, such as					
<ul style="list-style-type: none"> <li>• Lecture by the teachers in the plenum</li> <li>• Guest lectures</li> <li>• Presentation by the students in the plenum</li> <li>• Plenary discussions</li> <li>• Working groups</li> <li>• Work tasks</li> <li>• Self-study</li> </ul>					
Each seminar is assigned to a focus area.					
<b>Forms of examination</b>					
The graded final examination takes the form of a seminar paper, an oral examination, a written examination or a term paper.					
<b>Requirements for the award of credit points</b>					
<ul style="list-style-type: none"> <li>• Successful completion of the study achievement in three seminars from the elective programme</li> <li>• Two of the seminars must serve the focus area Theoretical Linguistics</li> <li>• Completion of the examination in one of the three seminars</li> </ul>					
<b>Use of the module</b> (in other programmes)					
None					
<b>Importance of the grade for the final grade</b>					
The grade is 12.5 % of the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Prof. Ralf Klabunde, Prof. Dr. Tibor Kiss					
<b>Other information</b>					
Knowledge of the base courses Introduction to CL (with Python) and Introduction to Linguistic Models (with R) can be assumed.					
In the seminars in the winter semester, knowledge from the base courses Linguistic Data Science and CL and AI can also be assumed.					
The choice of two courses from one focus area determines the focus of the module.					
The study achievement to be completed for a seminar, the possible examination achievement in this seminar, and the focus assignment of the course are specified in the course catalogue.					
Lecturers can make active participation in the seminar mandatory, for example through discussion or reflection rounds. If this results in mandatory attendance at course dates, this must be noted in the course catalogue.					

Note: If a written final examination was completed in Core Module 1 (written examination, term paper), an oral examination (seminar paper) must be completed in Core Module 2. If an oral final examination was completed in Core Module 1 (seminar paper), a written examination (term paper, written exam) must be completed in Core Module 2.

<b>Core Module 1: Focus on Computational Linguistics</b>					
<b>Module no./Abbreviation</b>	<b>Credits</b>	<b>Workload</b>	<b>Semester</b>	<b>Cycle</b>	<b>Duration</b>
CM 1	9	270 h	2nd/3rd sem.	Courses are offered every semester	1-2 semesters
<b>Courses</b> 3 Advanced Course/Seminar			<b>Contact time</b> 2 SWS each	<b>Self-study</b> 180 h	<b>Group size</b> any
<b>Participation requirements:</b> None					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students are able to formulate smaller problems in Computational Linguistics appropriately.</li> <li>• They know different approaches to problem solving and can critically apply some of them to questions and problems.</li> <li>• They understand that there is no single right answer in many areas and can constructively exchange ideas with others about possible solutions and weigh up the advantages and disadvantages of different perspectives.</li> <li>• The students know individual advanced computational linguistic methods, models and theories and can apply them critically to questions and problems.</li> <li>• They are familiar with the programming languages they have learned (mainly R and Python) and can deal with further instructions or documentation in order to use new modules or packages.</li> <li>• They plan simple programmes in a structured way and can implement them according to their planning.</li> <li>• They read and understand programming code from others and write and document their own code for others to understand.</li> <li>• They critically discuss theories and implementations with others.</li> <li>• Typical bias traps due to data coding or implementation of algorithms are familiar to them and they can make conscious decisions about critical cases.</li> </ul>					
<b>Content</b> In seminars of the Computational Linguistics specialisation, students learn about issues, theories and methods from the fields of computational linguistics and language modelling. In individual seminars, they also deal with specific tools and frameworks or libraries or advanced libraries for R or application areas such as machine learning, especially in the area of supervised learning methods and reinforcement learning, corpus analysis and explorative data analysis, programme planning and modelling with UML, tokenisation and parsing, among others, as well as co-occurrence analysis. Special attention will be paid to the consequences of perspective or technical bias and the responsibility of computational linguists in dealing with partly personal language data.					
<b>Forms of teaching</b> The module consists of three seminars in which different forms of learning are used, such as <ul style="list-style-type: none"> <li>• Lecture by the teachers in the plenum</li> <li>• Guest lectures</li> <li>• Presentation by the students in the plenum</li> <li>• Plenary discussions</li> <li>• Working groups</li> <li>• Work tasks</li> <li>• Self-study</li> </ul>					
<b>Forms of examination</b> The graded final examination takes the form of a seminar paper, an oral examination, a written examination or a term paper.					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Successful completion of the study achievement in three seminars from the elective programme</li> <li>• Two of the seminars must serve the focus area Computational Linguistics</li> <li>• Completion of the examination in one of the three seminars</li> </ul>					
<b>Use of the module</b> (in other programmes): None					
<b>Importance of the grade for the final grade</b> The grade is 12.5 % of the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Dr. Claudia Roch					
<b>Other information</b> Knowledge of the base courses Introduction to CL (with Python) and Introduction to Linguistic Models (with R) can be assumed.					

In the seminars in the winter semester, knowledge from the base courses Linguistic Data Science and CL and AI can also be assumed.

The choice of two courses from one focus area determines the focus of the module.

The study achievement to be completed for a seminar, the possible examination achievement in this seminar and the focus assignment of the course are specified in the course catalogue.

Lecturers can make active participation in the seminar mandatory, for example through discussion or reflection rounds. If this results in mandatory attendance at course dates, this must be noted in the course catalogue.

Note: If a written final examination was completed in Core Module 1 (written examination, term paper), an oral examination (seminar paper) must be completed in Core Module 2. If an oral final examination was completed in Core Module 1 (seminar paper), a written examination (term paper, written exam) must be completed in Core Module 2.

<b>Core Module 1: Focus on Linguistic Data Science</b>					
<b>Module no./Abbreviation</b> CM 1	<b>Credits</b> 9	<b>Workload</b> 270 h	<b>Semester</b> 2nd/3rd sem.	<b>Cycle</b> Courses are offered every semester	<b>Duration</b> 1-2 semesters
<b>Courses</b> 3 Advanced Course/Seminar			<b>Contact time</b> 2 SWS each	<b>Self-study</b> 180 h	<b>Group size</b> any
<b>Participation requirements</b> None					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students are able to adequately formulate smaller problems in Linguistic Data Science.</li> <li>• They know different approaches to problem solving and can critically apply some of them to questions and problems.</li> <li>• They understand that there is no single right answer in many areas and can constructively exchange ideas with others about possible solutions and weigh up the advantages and disadvantages of different perspectives.</li> <li>• The students know advanced methods, models and theories from the field of Linguistic Data Science and can apply them critically to questions and problems.</li> <li>• They know different procedures for data collection and can collect even small amounts of data.</li> <li>• They are familiar with the programming languages and environments used for data processing and can deal with further instructions or documentation.</li> <li>• They can understand and critically question data (in the sense of data literacy), studies and evaluations.</li> <li>• They can understand the influence of chosen procedures and models on the collected data, are aware of unavoidable biases and can make decisions and trade-offs on the use of models (data responsibility).</li> </ul>					
<b>Content</b> In seminars of the focus area Linguistic Data Science, students learn about issues, theories and methods from the fields of Linguistic Data Science, Modelling and Experimental Linguistics. In individual seminars, they also deal with specific tools, frameworks or application areas. These include: <ul style="list-style-type: none"> <li>• Annotation Mining</li> <li>• Multivariate statistics</li> <li>• Exploratory data analysis</li> <li>• Principal Component Analysis</li> <li>• Correspondence Analysis</li> <li>• Bay's modelling</li> <li>• Generalized Linear Mixed Models with binomial and Poisson distributions</li> <li>• Visualisation methods for the exploration of large amounts of data</li> </ul> Special attention will be paid to the consequences of perspective or technical bias and the responsibility of data scientists in dealing with sometimes sensitive data.					
<b>Forms of teaching</b> The module consists of three seminars in which different forms of learning are used, such as <ul style="list-style-type: none"> <li>• Lecture by the teachers in the plenum</li> <li>• Guest lectures</li> <li>• Presentation by the students in the plenum</li> <li>• Plenary discussions</li> <li>• Working groups</li> <li>• Work tasks</li> <li>• Self-study</li> </ul>					
<b>Forms of examination</b> The graded final examination takes the form of a seminar paper, an oral examination, a written examination or a term paper.					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Successful completion of the study achievement in three seminars from the Advanced Courses elective programme</li> <li>• Two of the seminars must serve the focus area Linguistic Data Science</li> <li>• Completion of the examination in one of the three seminars</li> </ul>					
<b>Use of the module</b> (in other programmes) None					
<b>Importance of the grade for the final grade</b>					

The grade is 12.5 % of the overall grade.

**Person responsible for the module and full-time lecturer:** Prof. Ralf Klabunde, Prof. Tibor Kiss

**Other information**

Knowledge of the base courses Introduction to CL (with Python) and Introduction to Linguistic Models (with R) can be assumed.

In the seminars in the winter semester, knowledge from the base courses Linguistic Data Science and CL and AI can also be assumed.

The choice of two courses from one focus area determines the focus of the module.

The study achievement to be completed for a seminar, the possible examination achievement in this seminar and the focus assignment of the course are specified in the course catalogue.

Lecturers can make active participation in the seminar mandatory, for example through discussion or reflection rounds. If this results in mandatory attendance at course dates, this must be noted in the course catalogue.

Note: If a written final examination was completed in Core Module 1 (written examination, term paper), an oral examination (seminar paper) must be completed in Core Module 2. If an oral final examination was completed in Core Module 1 (seminar paper), a written examination (term paper, written exam) must be completed in Core Module 2.

<b>Core Module 2: Focus on Theoretical Linguistics</b>					
<b>Module no./Abbreviation</b> CM 2	<b>Credits</b> 9	<b>Workload</b> 270 h	<b>Semester</b> 3rd sem.	<b>Cycle</b> Courses are offered every semester	<b>Duration</b> 1 semester
<b>Courses</b> 3 Advanced Course/Seminar			<b>Contact time</b> 2 SWS each	<b>Self-study</b> 180 h	<b>Group size</b> any
<b>Participation requirements:</b> None					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students are able to adequately formulate smaller problems in theoretical linguistics.</li> <li>• They understand that there is no single right answer in many areas and can constructively exchange ideas with others about possible solutions and weigh up the advantages and disadvantages of different perspectives.</li> <li>• Students know advanced linguistic theories and can apply them critically to questions and problems.</li> <li>• They are familiar with specialist literature and know reference works in the subject area.</li> <li>• They can discuss theories critically with others.</li> <li>• They gain an initial insight into historical influences on theories and approaches and can recognise the need for adaptation in new areas</li> </ul>					
<b>Content</b> In seminars of the focus area Theoretical Linguistics, students learn about issues and theories from areas such as pragmatics, syntax and morphology. They deal with specific questions or problem areas in more detail. These include linguistic resources, theoretical problems between syntax and semantics (scope, countability, control), offline vs. online methods of experimental linguistics with a focus on syntax and semantics, drawing on linguistic models to annotate corpora, teaching models within generative and constraint-based grammar theory and linked questions of methodology (acceptability, grammaticality, intuition) up to the study of language in (online) gaming or speaker modelling in game theory.					
<b>Forms of teaching</b> The module consists of three seminars in which different forms of learning are used, such as <ul style="list-style-type: none"> <li>• Lecture by the teachers in the plenum</li> <li>• Guest lectures</li> <li>• Presentation by the students in the plenum</li> <li>• Plenary discussions</li> <li>• Working groups</li> <li>• Work tasks</li> <li>• Self-study</li> </ul> Each seminar is assigned to a focus area.					
<b>Forms of examination</b> The graded final examination takes the form of a seminar paper, an oral examination, a written examination or a term paper.					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Successful completion of the study achievement in three seminars from the elective programme</li> <li>• Two of the seminars must serve the focus area</li> <li>• Completion of the examination in one of the three seminars</li> <li>• If a written final examination was completed in Core Module 1 (written examination, term paper), an oral examination (seminar paper) must be completed in Core Module 2. If an oral final examination was completed in Core Module 1 (seminar paper), a written examination (term paper) must be completed in Core Module 2.</li> </ul>					
<b>Use of the module</b> (in other programmes) None					
<b>Importance of the grade for the final grade</b> The grade is 12.5 % of the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Prof. Tibor Kiss					
<b>Other information</b> Knowledge of the base courses Introduction to CL (with Python) and Introduction to Linguistic Models (with R) can be assumed. In the seminars in the winter semester, knowledge from the base courses Linguistic Data Science and CL and AI can also be assumed. The choice of two courses from one focus area determines the focus of the module. The study achievement to be completed for a seminar, the possible examination achievement in this seminar and the focus assignment of the course are specified in the course catalogue.					

Lecturers can make active participation in the seminar mandatory, for example through discussion or reflection rounds. If this results in mandatory attendance at course dates, this must be noted in the course catalogue.



Core Module 2: Focus on Computational Linguistics					
<b>Module no./Abbreviation</b> CM 2	<b>Credits</b> 9	<b>Workload</b> 270 h	<b>Semester</b> 3rd sem.	<b>Cycle</b> Courses are offered every semester	<b>Duration</b> 1 semester
<b>Courses</b> 3 Advanced Course/Seminar			<b>Contact time</b> 2 SWS each	<b>Self-study</b> 180 h	<b>Group size</b> any
<b>Participation requirements:</b> None					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students are able to formulate smaller problems in Computational Linguistics appropriately.</li> <li>• They know different approaches to problem solving and can critically apply some of them to questions and problems.</li> <li>• They understand that there is no single right answer in many areas and can constructively exchange ideas with others about possible solutions and weigh up the advantages and disadvantages of different perspectives.</li> <li>• The students know individual advanced computational linguistic methods, models and theories and can apply them critically to questions and problems.</li> <li>• They are familiar with the programming languages they have learned (mainly R and Python) and can deal with further instructions or documentation in order to use new modules or packages.</li> <li>• They plan simple programmes in a structured way and can implement them according to their planning.</li> <li>• They read and understand programming code from others and write and document their own code for others to understand.</li> <li>• They critically discuss theories and implementations with others.</li> <li>• Typical bias traps due to data coding or implementation of algorithms are familiar to them and they can make conscious decisions about critical cases.</li> </ul>					
<b>Content</b> In seminars of the focus area Computational Linguistics, students learn about issues, theories and methods from the fields of computational linguistics and language modelling. In individual seminars, they also deal with specific tools and frameworks or libraries such as NLTK or SpaCy for Python or advanced libraries for R (e.g. <i>brms</i> for Bayesian modelling) or application areas such as machine learning, especially in the area of supervised learning methods and reinforcement learning, corpus analysis and explorative data analysis, programme planning and modelling with UML, tokenisation and parsing, among others, as well as co-occurrence analysis. Special attention will be paid to the consequences of perspective or technical bias and the responsibility of computational linguists in dealing with partly personal language data.					
<b>Forms of teaching</b> The module consists of three seminars in which different forms of learning are used, such as <ul style="list-style-type: none"> <li>• Lecture by the teachers in the plenum</li> <li>• Guest lectures</li> <li>• Presentation by the students in the plenum</li> <li>• Plenary discussions</li> <li>• Working groups</li> <li>• Work tasks</li> <li>• Self-study</li> </ul> Each seminar is assigned to a focus area.					
<b>Forms of examination</b> The graded final examination takes the form of a seminar paper, an oral examination, a written examination or a term paper.					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Successful completion of the study achievement in three seminars from the elective programme</li> <li>• Two of the seminars must serve the focus area Computational Linguistics</li> <li>• Completion of the examination in one of the three seminars</li> <li>• If a written final examination was completed in Core Module 1 (written examination, term paper), an oral examination (seminar paper) must be completed in Core Module 2. If an oral final examination was completed in Core Module 1 (seminar paper), a written examination (term paper, written exam) must be completed in Core Module 2.</li> </ul>					
<b>Use of the module</b> (in other programmes) None					

<b>Importance of the grade for the final grade</b>
--

The grade is 12.5 % of the overall grade.
---

<b>Person responsible for the module and full-time lecturer:</b> Prof. Tibor Kiss
---

<b>Other information</b>
--------------------------

Knowledge of the base courses Introduction to CL (with Python) and Introduction to Linguistic Models (with R) can be assumed.
---

In the seminars in the winter semester, knowledge from the base courses Linguistic Data Science and CL and AI can also be assumed.
--

The choice of two courses from one focus area determines the focus of the module.
---

The study achievement to be completed for a seminar, the possible examination achievement in this seminar and the focus assignment of the course are specified in the course catalogue.
---

Lecturers can make active participation in the seminar mandatory, for example through discussion or reflection rounds. If this results in mandatory attendance at course dates, this must be noted in the course catalogue.
---

<b>Core Module 2: Focus on Linguistic Data Science</b>					
<b>Module no./Abbreviation</b> CM 2	<b>Credits</b> 9	<b>Workload</b> 270 h	<b>Semester</b> 3rd sem.	<b>Cycle</b> Courses are offered every semester	<b>Duration</b> 1 semester
<b>Courses</b> 3 Advanced Course/Seminar			<b>Contact time</b> 2 SWS each	<b>Self-study</b> 180 h	<b>Group size</b> any
<b>Participation requirements:</b> None					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students are able to adequately formulate smaller problems in Linguistic Data Science.</li> <li>• They know different approaches to problem solving and can critically apply some of them to questions and problems.</li> <li>• They understand that there is no single right answer in many areas and can constructively exchange ideas with others about possible solutions and weigh up the advantages and disadvantages of different perspectives.</li> <li>• Students know advanced methods, models and theories from the field of Linguistic Data Science and can apply them critically to questions and problems.</li> <li>• They know different procedures for data collection and can collect even small amounts of data.</li> <li>• They are familiar with the programming languages and environments used for data processing and can deal with further instructions or documentation.</li> <li>• They can understand and critically question data (in the sense of data literacy), studies and evaluations.</li> <li>• They can understand the influence of chosen procedures and models on the collected data, are aware of unavoidable biases and can make decisions and trade-offs on the use of models (data responsibility).</li> </ul>					
<b>Content</b> <p>In seminars of the focus area Linguistic Data Science, students learn about issues, theories and methods from the fields of Linguistic Data Science, Modelling and Experimental Linguistics. In individual seminars, they also deal with specific tools, frameworks or application areas. These include:</p> <ul style="list-style-type: none"> <li>• Annotation Mining</li> <li>• Multivariate statistics</li> <li>• Exploratory data analysis</li> <li>• Principal Component Analysis</li> <li>• Correspondence Analysis</li> <li>• Bay's modelling</li> <li>• Generalized Linear Mixed Models with binomial and Poisson distributions</li> <li>• Visualisation methods for the exploration of large amounts of data</li> </ul> <p>Special attention will be paid to the consequences of perspective or technical bias and the responsibility of data scientists in dealing with sometimes sensitive data.</p>					
<b>Forms of teaching</b> <p>The module consists of three seminars in which different forms of learning are used, such as</p> <ul style="list-style-type: none"> <li>• Lecture by the teachers in the plenum</li> <li>• Guest lectures</li> <li>• Presentation by the students in the plenum</li> <li>• Plenary discussions</li> <li>• Working groups</li> <li>• Work tasks</li> <li>• Self-study</li> </ul> <p>Each seminar is assigned to a focus area.</p>					
<b>Forms of examination</b> <p>The graded final examination takes the form of a seminar paper, an oral examination, a written examination or a term paper.</p>					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Successful completion of the study achievement in three seminars from the elective programme</li> <li>• Two of the seminars must serve the focus area Linguistic Data Science</li> <li>• Completion of the examination in one of the three seminars</li> <li>• If a written final examination was completed in Core Module 1 (written examination, term paper), an oral examination (seminar paper) must be completed in Core Module 2. If an oral final examination was completed in</li> </ul>					

Core Module 1 (seminar paper), a written examination (term paper, written exam) must be completed in Core Module 2.
<b>Use of the module</b> (in other programmes) None
<b>Importance of the grade for the final grade</b> The grade is 12.5 % of the overall grade.
<b>Person responsible for the module and full-time lecturer:</b> Prof. Tibor Kiss
<b>Other information</b> Knowledge of the base courses Introduction to CL (with Python) and Introduction to Linguistic Models (with R) can be assumed. In the seminars in the winter semester, knowledge from the base courses Linguistic Data Science and CL and AI can also be assumed. The choice of two courses from one focus area determines the focus of the module. The study achievement to be completed for a seminar, the possible examination achievement in this seminar and the focus assignment of the course are specified in the course catalogue. Lecturers can make active participation in the seminar mandatory, for example through discussion or reflection rounds. If this results in mandatory attendance at course dates, this must be noted in the course catalogue.

<b>Research Module 1</b>					
<b>Module no./Abbreviation</b> RM 1	<b>Credits</b> 21	<b>Workload</b> 630 h	<b>Semester</b> 2.-3. sem.	<b>Cycle</b> Accompanying courses in the summer semester Flexible project start	<b>Duration</b> 2 semesters
<b>Courses</b> <ul style="list-style-type: none"> <li>• Research project</li> <li>• Preparatory Seminar Project Management</li> <li>• Colloquium 1</li> </ul>			<b>Contact time</b> 0.5 SWS 2 SWS 1 SWS	<b>Self-study</b> 525 h	<b>Group size</b> 1-5 students  any
<b>Participation requirements:</b> None					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students have initial experience in planning and conducting small scientific studies.</li> <li>• They have become familiar with simple procedures for conducting the studies in a methodologically clean manner and for the reception of relevant previous research.</li> <li>• They discuss their planning and work out solution strategies together.</li> <li>• They constructively question the suggestions of others and are able to accept the questions and criticism of others appropriately.</li> <li>• They can prepare and present a project appropriately for an audience with different levels of prior knowledge.</li> </ul>					
<b>Content</b> In the research project, students deal with a topic of their own choice in depth. This can be developed from the three focus areas of the course.  In the propaedeutic course, you will learn the basics of project management, for example, with methods of agile project management (SCRUM, Kanban). One focus area is on how to deal with mistakes in the team or one's own mistakes, as they typically occur in the planning and first realisation phase of a project.  In the colloquium, they gain insight into different research projects of the other participants (and other researchers at the LDSL, among others).					
<b>Forms of teaching</b> Accompanied by a supervisor, the students develop a small research question on a topic of their choice, which they work on in the course of the project. To do this, they should first and foremost collect data independently and prepare it for evaluation.  In the preparatory seminar Project Management, students learn the basics of project management and receive a classification of the various steps of a project and different project management approaches in the context of scientific and economic work. They are guided to reflect and work on typical errors/sources in their own project.  In the colloquium, they present their project idea and planning and discuss the proposals of the other participants, as well as the other presentations in the colloquium. In doing so, they learn about potential failures or successes already in the initial phase of their project.					
<b>Forms of examination</b> <ul style="list-style-type: none"> <li>• The introductory presentation in the colloquium on the project idea is graded in terms of content and clarity of presentation. The handling of questions or criticism from the audience also flows into the evaluation as well as feedback for others.</li> </ul>					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Active participation in the colloquium through one's own presentation, questions and feedback on the presentations of others.</li> <li>• Participation in the preparatory seminar Project Management and participation in exercises in the seminar</li> <li>• Accompanied by a chosen supervisor: independent development of a topic for the project work and planning of the work steps to work on the topic. Produce a term paper documenting the project steps, in particular, reflecting on considered but rejected (or tried and failed) solution attempts and learning from the attempts.</li> </ul>					
<b>Use of the module</b> (in other programmes): None					
<b>Importance of the grade for the final grade</b> The grade is 17.5 % of the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Prof. Tibor Kiss, Prof. Ralf Klabunde					
<b>Other information</b>					

Active participation in the colloquium may make attendance at colloquium sessions mandatory, so that students may be obliged to attend. The number of dates and dates to be attended will be determined at the beginning of the semester depending, among other things, on the number of participants.

Active participation in the introductory project seminar usually requires the students' attendance.

Work on the research projects is possible individually or in groups of up to five students.

For the research topics, supervisors can offer suggestions for subject areas.

<b>Research Module 2</b>					
<b>Module no./Abbreviation</b> RM 2	<b>Credits</b> 21	<b>Workload</b> 630 h	<b>Semester</b> 3rd-4th sem.	<b>Cycle</b> Accompanying courses in the summer semester Flexible project start	<b>Duration</b> 2 semesters
<b>Courses</b> <ul style="list-style-type: none"> <li>• Research project</li> <li>• Project Closing Seminar</li> <li>• Colloquium 2</li> </ul>			<b>Contact time</b> 0.5 SWS 2 SWS 1 SWS	<b>Self-study</b> 525 h	<b>Group size</b> 1-5 students  any
<b>Participation requirements:</b> As a rule, participation in colloquium 2 requires successful participation in colloquium 1. In agreement with the supervisors of both research projects, participation in both colloquia in one semester is possible in exceptional cases.					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students have basic experience in planning and conducting small scientific studies.</li> <li>• They have become familiar with and used procedures for conducting the studies in a methodologically clean manner and for the reception of relevant previous research.</li> <li>• They discuss their planning with others and work out realistic solution strategies together or alone.</li> <li>• They constructively question and criticise others' suggestions and are able to accept others' questions and criticism appropriately.</li> <li>• They can prepare and present a completed project and the progress of the project appropriately for an audience with different levels of prior knowledge.</li> <li>• They can discuss their own results in a problem-conscious way.</li> </ul>					
<b>Content</b> In the research project, students deal with a topic of their own choice in depth. This should be from one of the three areas of specialisation. It can build on their first research project.  In the Project Closing Seminar, they will learn about the different aspects of project closure and become familiar, in particular, with reflecting on problems in the process and using these as experience for later projects (learned lessons).  In the colloquium, they gain insight into different research projects of the other participants (and other researchers at the LDSL, among others).					
<b>Forms of teaching</b> Accompanied by a supervisor, the students develop a small research question on a topic of their choice, which they work on in the course of the project. To do this, they should first and foremost independently collect data and prepare and interpret it for their evaluation.  In the Project Closing Seminar, students learn further techniques for presenting results and for successfully completing a project in a team. In lectures and exercises, they learn how to successfully present results to an audience outside their field of expertise.  In the colloquium, they present their project idea and planning and discuss the proposals of the other participants, as well as the other presentations in the colloquium. In doing so, they learn about presenting results to a group of less or not informed listeners.					
<b>Forms of examination</b> The final presentation in the colloquium on the project idea is graded in terms of content and clarity of presentation. The handling of questions or criticism from the audience also flows into the evaluation, as well as feedback to those of others.					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Active participation in the colloquium through one's own presentation, questions and feedback on the presentations of others.</li> <li>• Participation in the final seminar and collaboration in exercises in the seminar</li> <li>• Accompanied by a self-selected supervisor: independent development of a topic for the project work and planning of the work steps to work on the topic. Produce a paper documenting the project steps, in particular, reflecting on the benefits of previous learning from project work and the difficulties (overcome) in interpreting the content.</li> </ul>					
<b>Use of the module</b> (in other programmes) None					
<b>Importance of the grade for the final grade</b> The grade is 17.5 % of the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Prof. Tibor Kiss, Prof. Ralf Klabunde					
<b>Other information</b>					

Active participation in the colloquium may make attendance at colloquium sessions mandatory, so that students may be obliged to attend. The number of dates and dates to be attended will be determined at the beginning of the semester depending, among other things, on the number of participants.

Active participation in the final project seminar usually requires the students' attendance.  
Work on the research projects is possible individually or in groups of up to five students.

For the research topics, supervisors can offer suggestions for subject areas.



<b>Master's thesis</b>					
<b>Module no./Abbreviation</b> MA	<b>Credits</b> 20	<b>Workload</b> 600 h	<b>Semester</b> 4th sem.	<b>Cycle</b> Flexible	<b>Duration</b> 1 semester
<b>Courses</b> <ul style="list-style-type: none"> <li>• Master's thesis</li> </ul>			<b>Contact time</b> 0.5 SWS	<b>Self-study</b> 585 h	<b>Group size</b> 1
<b>Participation requirements:</b> To register for the Master's thesis, 60 CP must already have been earned.					
<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• Students deepen their skills in the area of scientific work.</li> <li>• They are familiar with subject-specific methods, theories and the specialist language and can use these in a targeted manner.</li> </ul>					
<b>Content</b> Students write a Master's thesis on a topic of their own choice.					
<b>Forms of teaching</b> The students write a Master's thesis on a topic of their own choice under the guidance of a supervisor.					
<b>Forms of examination</b> Writing a Master's thesis of usually no more than 60 pages (excluding cover sheet, appendices, declaration of independence).					
<b>Requirements for the award of credit points</b> <ul style="list-style-type: none"> <li>• Passing the Master's thesis</li> </ul>					
<b>Use of the module</b> (in other programmes) None					
<b>Importance of the grade for the final grade</b> The grade is 30 % of the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Prof. Tibor Kiss, Prof. Ralf Klabunde					
<b>Other information</b> <p>The timing of the topic assignment is to be agreed with the supervisor.</p> <p>Proposals for topics should be made independently by the students. Potential supervisors can offer subject areas on their websites (via the website <a href="http://ldsl.rub.de">ldsl.rub.de</a>).</p>					

<b>Supplementary Module</b>					
<b>Module no./Abbreviation</b>	<b>Credits</b>	<b>Workload</b>	<b>Semester</b>	<b>Cycle</b>	<b>Duration</b>
SM	16	480 h	1st-2nd sem.	Every semester	2 semesters
<b>Courses</b> Choice from various courses offered by the UA Ruhr			<b>Contact time</b> Depending on the chosen courses	<b>Self-study</b> Depending on the chosen courses	<b>Group size</b> different
<b>Participation requirements:</b> The choice of courses for the Supplementary Module is made in consultation with the academic advisor. In addition, for individual courses, prerequisites must be observed for the subject in which the course is offered.					
<b>Learning outcomes</b> Students deepen their skills in the focus areas or complete their individual profile.					
<b>Content</b> The CP are earned in "interdisciplinary" modules. These can be modules that are offered in part or in full by other subjects. Recommendations for the modules are offered and compiled by the student advisory service. The guiding idea is the proximity to (or suitable supplementation of) the focus areas in the programme.					
<b>Forms of teaching</b> Different courses can be taken in the module.  The choice/recognition is made in individual consultation with the subject advisor of the programme.					
<b>Forms of examination</b> Depending on the chosen courses, various forms of examination are possible.					
<b>Requirements for the award of credit points</b> Passing the requirements in courses with a total effort of at least 16 CP.  Only courses agreed on by the academic advisor before registration count towards the total of 16 CP.  If the student studies under constraints that have to be fulfilled within the SM, credit points are only awarded if the conditions are fulfilled by the choice of courses.					
<b>Use of the module</b> (in other programmes) None					
<b>Importance of the grade for the final grade</b> The module is ungraded. It does not count towards the overall grade.					
<b>Person responsible for the module and full-time lecturer:</b> Dr. Claudia Roch, Mirjam Koch, M.Sc.					
<b>Other information</b>  Each semester, first, students decide on a list of courses they would like to take for the Supplementary Module. They send that list to the academic advisor. If the advisor agrees with the choices (they usually only disagree if a course covers content already contained in a course the student partook in previously or the choice disregards conditions the student has to fulfil), they are taken down in a list at the LDSL where accepted SM-courses per semester for each student are documented. Only courses from this list can later count towards the total credits for this Module.  Students only register for the courses via eCampus (or within the UA Ruhr) after they received the academic advisor's acceptance.  If the student studies under constraints that have to be fulfilled within the SM, credit points are only awarded if the conditions are fulfilled by the choice of courses.					