

**Study and Examination Regulations for the Master's Degree Program in
Cognitive Systems: Language, Learning, and Reasoning at the University of
Potsdam
October 16, 2013**

The Faculty Council of the Faculty of Human Sciences at the University of Potsdam has on October 16, 2013 approved the following study and examination regulations as statutes, thereby acting on the basis of Sections 18 subsections 1 and 2, Section 21 subsections 2 and 5(2), as well as Section 62 subsection 2 no. 2 of the Brandenburg Higher Education Act, in the version of December 18, 2008 (Law and Ordinance Gazette (GVBl.) I/08 p. 318), last amended by the act of February 11, 2013 (GVBl. I/13, No. 04), in combination with Section 3 subsection 2 of the ordinance on the drafting of examination regulations to ensure the equivalence of courses, examinations and degrees of June 7, 2007 (GVBl. II/07 p. 134), last amended by the ordinance of June 15, 2010 (GVBl. II/10, [no. 33]), as well as Section 14 subsection 1 no. 2 of the basic regulations of the University of Potsdam of December 17, 2009 (Official Announcements of the University of Potsdam no. 4/2010, p. 60), in the version included in the first statutes amending the Basic Constitution (GrundO) of the University of Potsdam of February 27, 2013 (Official Announcements of the University of Potsdam no. 4/2013 p. 116) and Section 1 subsection 2 of the new version of the general study and examination regulations for non-teacher training-related bachelor's and master's degree programs at the University of Potsdam of January 30, 2013 (BAMA-O) (Official Announcements of the University of Potsdam no. 3/2013, pp. 35-55).

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§ 1 Scope

(1) These regulations apply for the master's degree program in "Cognitive Systems: Language, Learning, and Reasoning" at the University of Potsdam. As regulations for this specific program, they supplement the new version of the general study and examination regulations for non-teacher-training-related bachelor's and master's degree programs at the University of Potsdam of January 30, 2013 (BAMA-O).

(2) In case of any inconsistencies between these regulations and BAMA-O, BAMA-O shall have priority over these regulations.

(3) This master’s degree program is suitable for part-time study. Students may enroll for part-time study subject to consultation of the Student Advisory Service for this course, with the goal of producing an individual study plan. Proof of this consultation, including an individual examinations plan, must be attached to the application for part-time study, in accordance with Section 3 of the regulations on part-time study at the University of Potsdam (part-time study regulations). In addition, the provisions of the part-time study regulations will apply.

§ 2 Degree Qualification

Upon gaining the necessary credit points and satisfying the requirements for graduation, through its human sciences faculty the University of Potsdam will confer the degree “Master of Science” (“M.Sc.”).

§ 3 Goals of the Master’s Degree Program

Graduates of the master’s degree program in *Cognitive Systems: Language, Learning, and Reasoning* are qualified to undertake scientific research and to hold management positions in the field of computer systems modeling and replicating the cognitive ability of human beings. In particular, graduates have comprehensive and detailed knowledge in the areas of computer linguistics (“language”), machine learning (“learning”), and artificial intelligence (“reasoning”), as well as the interdisciplinary links between these fields.

Graduates have acquired mastery of both specific and general methods that are necessary to define and to solve problems in the field of cognitive technologies, including problems of a strategic nature. They are able to grasp complex new problems in this field, properly model the problem in question, and apply and develop procedures and technologies for effective resolution of such problems. They are capable of assessing modeling methods and problem-solving procedures and of critically analyzing these methods and procedures.

Graduates are able to plan, organize and manage the work of groups handling complex tasks and to present the results of their work. They are thus particularly qualified for involvement in processes of civic participation. They are able to hold subject-specific and interdisciplinary discussions in English.

§ 4 Duration and Structure of the Master’s Degree Program

The consecutive, research-oriented master’s degree program *Cognitive Systems: Language, Learning, and Reasoning* is offered at the University of Potsdam as a single-subject program with a regular duration (full-time study) of four semesters and 120 credit points.

§ 5 Modules and Course of Studies

(1) The master’s degree program in *Cognitive Systems: Language, Learning, and Reasoning* consists of the following components:

Master’s Degree Program		
Module Code	Name of Module	CP
I – Mandatory Modules (<i>total 27 CP</i>)		

BM1	Advanced Natural Language Processing	9
BM2	Machine Learning and Data Analysis	9
BM3	Advanced Problem Solving Techniques	9
II – Optional Modules (24 CP)		
Students must successfully complete a total of 24 credit points of optional modules.		
AM11	Current Topics in Computational Linguistics 1	6
AM12	Current Topics in Computational Linguistics 2	6
AM21	Current Topics in Machine Learning 1	6
AM22	Current Topics in Machine Learning 2	6
AM31	Current Topics in Computational Intelligence 1	6
AM32	Current Topics in Computational Intelligence 2	6
<p>The Examining Board can determine that students admitted to the master’s program complete one or two of the following modules (marked with a *; Bridge Modules FM1 to FM3), instead of one or two optional modules from the AM11 to AM32 list. This is done if the content of the Bridge Modules was not part of the university degree that qualified the student for admission to this master’s program.</p> <p>Modules FM1 to FM3 can only be taken with approval by the Examining Board. The number of optional courses (AM11 to AM32) is then reduced correspondingly.</p>		
* FM1	Foundations of Mathematics	6
* FM2	Foundations of Computer Science	6
* FM3	Foundations of Linguistics	6
III. Project Seminars (24 CP)		
A total of 24 credit points must be completed successfully in project seminars.		
PM1	Project in Computational Linguistics	12
PM2	Project in Machine Learning	12
PM3	Project in Computational Intelligence	12
IV. Scholarly Work Methods (15 CP)		
IM1	Individual Research Module	15
Master’s Thesis (30 CP)		
Total CPs in the mandatory and optional modules		120

(2) The modules listed in Para. I to IV are described in the list of modules which is attached to these regulations as Appendix 1.

(3) Students may only take individual classes that are offered for multiple modules once.

(4) Sample course plans for the master's degree program are attached to these regulations as Appendix 2.

(5) English is the language of instruction for this program.

§ 6 Master's Thesis

(1) Once the student has gained at least 90 credit points, he or she will be entitled to receive immediate notification of a topic for his or her master's thesis. In the event that the University's award of credit points is delayed, then, in addition to 60 completed credit points, it will be sufficient if the student provides proof of registration for examinations which encompass a further 30 credit points.

(2) Including the oral defense, the master's thesis amounts to a total of 30 credit points.

§ 7 Time Spent Abroad

Students are expressly advised to spend time abroad during the program. The individual module IM1 and the optional modules AM11 to AM32 during the third semester are particularly suitable for this purpose, as is the master's thesis during the fourth semester.

§ 8 Validity, Invalidity and Transitional Provisions

(1) These regulations will come into force on the day following their publication in the official notices of the University of Potsdam.

(2) These regulations apply for all students enrolling in the master's degree program in *Cognitive Systems: Language, Learning, and Reasoning* at the University of Potsdam following official publication of these regulations.