OFFICIAL ANNOUNCEMENT

RWTH AACHEN UNIVERSITY

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Course-Specific Examination Regulations

for the Master’s Course of Study

Computational Social Systems

of the RTWH Aachen University

dated September 4, 2019

On the basis of §§ 2 para. 4, 64 of the law governing the Universities of the Federal State of North Rhine-Westphalia (Higher Education Act - HEA) in the version of September 16, 2014 (GV. NRW p. 547), most recently amended by Article 3 of the Act on Securing the Accreditation of Courses of Study in North Rhine Westphalia dated October 17, 2017 (GV. NRW p. 806), RWTH Aachen University (RWTH) has issued the following examination regulations:

ISSUED ON BEHALF OF THE DEAN OF SECTION 1.1 OF DEPARTMENT 1.0 OF RWTH AACHEN UNIVERSITY
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I. General

§ 1
Scope of Application and Academic Degree

(1) These examination regulations apply to the Master's course of study Computational Social Systems at RWTH. They only apply in conjunction with the General Examination Regulations (GER) in the relevant applicable version, and include additional course of study-specific regulations. In cases of doubt, the regulations of the general examination regulations take priority.

(2) In case of successful completion of the Master's course of study, the Faculty of Arts and Humanities awards the academic degree of Master of Science RWTH Aachen University (M. Sc. RWTH).

§ 2
Objectives of the Course of Study and Language Provisions

(1) Master's course of study according to § 2 para. 3 GER which builds upon the Bachelor's courses of study in IT and Psychology at RWTH Aachen University.

(2) The overall educational objectives are set out in § 2 para. 1 and 3 GER. For further information and provisions on the objectives of this Master's course of study, please refer to Appendix 2 of the present examination regulations.

(3) Teaching takes place in the English language. If individual modules are taught in another language, this is indicated in the module catalogue.

(4) In consultation with the respective examiner, examinations can be taken in German or English.

§ 3
Admission Requirements

(1) Basic requirement for admission is a recognized first university degree according to § 3 para. 4 GER.

(2) To meet the educational prerequisites and successfully complete the Master's course of study, the student applicant must have the necessary competence in the following areas:

Computer science	
• Programming • Data structures and algorithms • Databases and information systems • Software engineering	8 CP 8 CP 6 CP 6 CP
Psychology	
• Statistics • Social psychology • Communication psychology • Cognitive psychology • Media psychology	6 CP 4 CP 4 CP 4 CP 4 CP

Philosophy and ethics	
• Advanced module – Practical philosophy	7 CP

The proven performance must be comparable to the Bachelor's course of study in Psychology or the Bachelor's course of study in Computer Science at RWTH.

(3) For admission conditional on additional requirements, § 3 para. 6 GER applies. If additional requirements corresponding to more than 40 credit points are required, admission to the Master's course of study is not possible.

(4) For this Master's course of study, adequate knowledge of the English language must be proven according to § 3 para. 9 GER.

(5) § 3 para. 12 GER applies for determining whether admission requirements are met.

(6) General regulations for the recognition of prior examinations are given in § 13 GER.

§ 4
Standard Period of Study, Curriculum, Credit Points and Scope of Study

(1) The standard period of study is four terms (two years) full-time, including preparation of the Master's thesis. The course of study may be commenced in either semester.

(2) The course of study consists of:

A mandatory component	44 CP
A mandatory elective component	30 CP
A Master's component	46 CP
Total	120 CP

These components are defined as follows:

Mandatory component (44 credit points)

Data and Algorithms	24 CP
Social Theories and Ethics	20 CP

In the mandatory elective component (30 credit points), either the specialization "Social Data Science" or the specialization "Social Theories and Ethics" must be completed. These are defined as follows:

Specialization "Social Data Science"

4 elective modules "Social Data Science"	24 CP
Reflecting Human-Technology Interaction Minor	1 CP
1 mandatory elective module "Social Theories and Ethics"	5 CP

Specialization “Social Theories and Ethics”

Applied Ethics	5 CP
Individuals and Technology – Advancing Seminar I	5 CP
Reflecting Human-Technology Interaction Major	3 CP
Reflecting Human-Technology Interaction Minor	1 CP
2 mandatory elective modules “Social Theories and Ethics”	10 CP
1 mandatory elective module “Social Data Science”	6 CP

Master's component (46 credit points)

Master Project Computational Social Systems	16 CP
Master Thesis Computational Social Systems	30 CP

The Central Examination Office must be notified of the choice of specialization when registering the Master’s thesis. To successfully complete the course of study, it is necessary to acquire a total of 120 credit points.

(3) All modules are defined in the module catalogue. The weighting of the examinations with credit points to be taken in the individual modules is carried out according to § 4 para. 4 GER.

§ 5
Obligatory Attendance in Classes

(1) According to § 5 para. 2 GER, obligatory attendance can only be stipulated in courses of the following type:

1. Tutorials
2. Seminars and introductory seminars
3. Colloquia
4. (Laboratory) practicals
5. Excursions

(2) The courses for which attendance is required according to para. 1, are identified as such in the module catalogue.

§ 6
Examinations and Examination Deadlines

(1) General regulations on examinations and examination periods are included in § 6 GER.

(2) Provided successful participation in modules or examinations or passing of module components according to § 5 para. 4 GER is stipulated as a precondition for participation in other examinations, this is indicated accordingly in the module catalogue.

§ 7
Types of Examinations

(1) General regulations on types of examination are included in § 7 GER.

(2) The duration of a written examination is a minimum of 60 and a maximum of 150 minutes.

(3) The duration of an oral examination is a minimum of 15 and a maximum of 30 minutes. An oral examination as a group examination is carried out with no more than four candidates with a duration of the oral examination of at least 15 and at most 30 minutes per candidate.

(4) The following applies to seminar and project papers in particular (e.g. review assignment, essay, design project) during the lecture period: Depending on the topic, the scope of the paper is between 2 and 10 A4 pages (with approx. 2,500 characters per page). The paper is usually to be completed within the lecture period and, depending on the topic, is concluded with a presentation. The exact scope is determined when the topics are assigned.

(5) The scope of a written paper is usually 15 – 20 A4 pages (with approx. 2,500 characters per page). The exact scope is determined when the topics are assigned. The topics (or subject areas) for written papers are assigned in the second week of lectures. The latest possible submission date is four weeks after the end of the lecture period. The assessment of the papers by the examiners takes place no later than five weeks after this submission date. For students who have not made use of this first examination date or who have to repeat their written paper, the next possible date of assignment and therefore the start of the repeat attempt is the date of assignment of the following semester. Accordingly, the deadline for submission is also that of the following semester. For papers of an empirical/experimental nature, the submission deadline is extended by one week. In principle, there is only one deadline per semester.

(6) The duration of a presentation is a minimum of 10 and a maximum of 60 minutes. The exact duration is determined when the topics are assigned.

(7) The following applies to colloquia in particular: The duration of the examination is a minimum of 15 and a maximum of 90 minutes. The exact duration is determined in consultation with the supervisor.

(8) The following applies to internships in particular: Students should independently draw on subject-specific knowledge and methods of study design and data analysis and interpretation using the hardware and software systems required for this purpose, developing them as required and using them when conducting experiments. In internships which are conceptual in orientation, students should independently develop and pursue research questions, elaborate them based on literature study and, if necessary, empirical work, and present the results in various formats for both academic and other audiences. Usually, assignments are worked on in small groups in order to train the students' ability to work in a team.

(9) The examiner determines the duration and, where applicable, other modalities of the respective examination at the beginning of the course in question.

(10) Admission to module examinations may be linked to the passing of so-called module components as examination requirements in accordance with § 7 para. 15 GER. This outlined for the relevant modules in the module catalogue. At the start of term, or by the time of the first course session, the lecturer provides precise criteria in the CMS regarding possible improvement of grades through the completion of module components, particularly the number and type of bonus-enabling tutorials as well as the mode of correction and assessment.

§ 8
Assessment and Grading

(1) General regulations for assessing the examinations and the formation of grades are included in § 10 GER.

(2) If an examination consists of several partial exams, each partial exam must be passed, i.e. be completed with the grade of at least "sufficient" (4.0).

(3) A module has been passed if all associated partial examinations have been passed with a grade of at least "sufficient" (4.0), and all other credit points or module components have been achieved according to the relevant course of study-specific examination regulations.

(4) The overall grade is formed taking into account all module grades and the grade of the Master's thesis according to § 10 para. 10 GER.

(5) In the case that all module examinations of the Master's course of study have been completed within the standard period of study, one weighted module grade corresponding to 15 credit points can be deleted according to § 10 para. 13 GER.

§ 9
Examination Board

The responsible Examination Board according to § 11 GER is the Examination Board of the Faculty of Arts and Humanities.

§ 10
Repeating Examinations or the Master's Thesis and Loss of the Right to Examination

(1) General regulations for resit examinations, the Master's thesis, and the loss of the right to examinations are included in § 14 GER.

(2) Modules that can be freely selected within a mandatory elective component of this Master's course of study can be changed on application on a maximum of three occasions by application to the Examination Board. It is not possible to change mandatory modules.

§ 11
Cancellation, Non-Attendance, Deception, Non-Compliance

General provisions on cancellation, non-attendance, withdrawal, deception or non- compliance are included in § 15 GER.

II. Master's Examination and Master's Thesis

§ 12
Type and Scope of the Master's Examination

(1) The Master's examination consists of

1. examinations that are to be completed based on the structure of the course of study according to § 4 paras. 2 to 4 and detailed in the module catalogue, as well as

2. the Master's thesis and the Master's degree colloquium.

The order of courses is based on the curriculum (appendix 1).

(2) The Master's thesis must be written on a topic in the area of the specialization selected. The assignment for the Master's thesis can only be issued if at least 60 credit points are attained, of which the elective component (44 credit points) must have been completed. In the case of the specialization "Social Data Science", the module Reflecting Human-Technology Interaction Minor (1 credit point) and the mandatory elective module from the component "Social Theories and Ethics" with a total of 5 credit points must also have been completed. In the case of the specialization "Social Theories and Ethics", the mandatory elective module from the component "Social Data Science" must have been completed to the extent of 6 credit points.

§ 13
Master's Thesis

(1) General regulations for the Master's thesis are included in § 17 GER.

(2) Reference is made to § 17 para. 2 GER with regard to supervision of the Master's thesis. As a rule, the first examiner of the Master's thesis is a lecturer from the chosen specialization, the second examiner is a lecturer from the Department of Computer Science (for the specialization "Social Data Science") or the Faculty of Arts and Humanities, in particular from the Department of Society, Technology, and Human Factors, Empirical Social and Human Sciences and Philosophy (for the specialization "Social Theories and Ethics"). In the case of interdisciplinary topics for the Master's thesis, supervision is usually provided from both areas of specialization.

(3) The Master's thesis is written in the English language.

(4) The turnaround time (time frame for completion) for the Master's thesis is usually a maximum of six months. In justified exceptional cases, the turnaround time can be extended by a maximum of up to six weeks upon application to the Examination Board in accordance with § 17 para. 7 GER. The written paper should not exceed a length of 100 pages without appendix.

(5) The candidate presents the results of the Master's thesis as part of a Master final colloquium. § 7 para. 12 GER in connection with § 7 para. 7 apply accordingly. It is possible to hold the Master's final colloquium before submission of the Master's thesis.

(6) The scope of work for execution and written preparation of the Master's thesis as well as the colloquium corresponds to 30 credit points.

§ 14
Acceptance and Assessment of the Master's Thesis

(1) General provisions on acceptance and assessment of the Master's thesis are included in § 18 GER.

(2) The Master's thesis is to be submitted on time with three copies to the Central Examination Office. Printed and bound copies must be submitted. Data and source codes used or created in preparing the paper are to be made digitally accessible in line with academic standards.

III. Final Provisions

§ 15
Viewing of Examination Files

Review of exam documents is carried out in accordance with § 22 GER.

§ 16
Coming into Effect, Publication and Transitional Provisions

(1) These examination regulations are published as an Official Announcement of RWTH Aachen University ("Amtliche Bekanntmachungen") and come into effect as of the winter semester 2019/2020.

(2) These examination regulations apply to all students who enrolled in the Master's course of study Computational Social Systems at RWTH for the first time in the winter semester 2019/2020.

Issued based on the resolutions of the Faculty Council of the Faculty of Arts and Humanities dated 10/07/2019.

The Rector
RWTH
Aachen University

Aachen, 04/09/2019

signed Rüdiger
Univ.-Prof. Dr. rer. nat. Dr. h. c. mult. U. Rüdiger

Appendix 1 – Curricula

Curriculum – Major Social Data Science

<table>
<tr><th>SWS</th><th>1 semester (WS)</th><th>2 semester (SS)</th><th>3 semester (WS)</th><th>4 semester (SS)</th></tr>
<tr><td>1</td><td rowspan="4">Text Mining</td><td rowspan="4">Scientific Programming with Python II</td><td rowspan="4">Social Data Science</td><td rowspan="3">Master Colloquium</td></tr>
<tr><td>2</td></tr>
<tr><td>3</td></tr>
<tr><td>4</td></tr>
<tr><td>5</td><td rowspan="4">Introduction to Data Science</td><td rowspan="2">Ethics, Technology, and Data</td><td rowspan="4">Advanced Course Data & Algorithms 4</td><td rowspan="12">Master Thesis</td></tr>
<tr><td>6</td></tr>
<tr><td>7</td><td rowspan="3">Reflecting Human-Technology Interaction Co-Teaching Seminar</td></tr>
<tr><td>8</td></tr>
<tr><td>9</td><td rowspan="4">Empirical Research Methods and Experiment Design</td><td rowspan="4">“Applied Ethics”, “Moral controversies”, or “Individuals and Technology Advancing Seminar 1”</td><td rowspan="6">Master Project</td></tr>
<tr><td>10</td></tr>
<tr><td>11</td></tr>
<tr><td>12</td><td rowspan="3">Introduction to Algorithmic Societies (Lecture Series)</td></tr>
<tr><td>13</td><td rowspan="3">Advanced Course Data & Algorithms 2</td></tr>
<tr><td>14</td><td rowspan="2">Theories of CMC and HCI</td></tr>
<tr><td>15</td><td></td></tr>
<tr><td>16</td><td rowspan="5">Advanced Course Data & Algorithms 1</td><td rowspan="5">Advanced Course Data & Algorithms 3</td><td></td><td></td></tr>
<tr><td>17</td><td></td><td></td></tr>
<tr><td>18</td><td></td><td></td></tr>
<tr><td>19</td><td></td><td></td></tr>
<tr><td>20</td><td></td><td></td></tr>
</table>

Curriculum Major Social Theories & Ethics

SWS	1 semester (WS)	2 semester (SS)	3 semester (WS)	4 semester (SS)
1	Text Mining	Scientific Programming with Python II	Social Data Science	Master Colloquium
2				
3				Master Thesis
4				
5	Introduction to Data Science	Ethics, Technology, and Data	Advanced Course Data & Algorithms 4	
6				
7		Reflecting Human-Technology Interaction Co-Teaching Seminar		
8				
9	Empirical Research Methods and Experiment Design	Applied Ethics	Master Project	
10				
11		Individuals and Technology Advancing Seminar 1		
12	Introduction to Algorithmic Societies (Lecture Series)			
13		Advanced Seminar Social Theories & Ethics 1		
14	Theories of CMC and HCI			
15		Advanced Seminar Social Theories & Ethics 1		
16				

Appendix 2: Objectives of the Course of Study

The course of study is designed to provide students with the specialist knowledge, skills and methods on the subject of computational social systems at the interface of computer science, psychology and ethics in such a way that they are able to carry out scientific work, apply scientific knowledge and methods in professional practice, critically classify scientific insights and act responsibly.
In this interdisciplinary Master's course of study, the knowledge acquired in the Bachelor's course of study is broadened and deepened, and it is combined with complementary methods and perspectives from other disciplines in such a way that the graduate is qualified to deal with complex issues and conduct independent scientific work.