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## **Examination Regulations of the University of Mannheim for the Master's Program "Mannheim Master in Social Data Science" (M.Sc.)**

**As at 20 February 2024**

(Bulletin of the President's Office (Bekanntmachungen des Rektorats) No. 03/2024 of 27 February 2024, pp. 64 et seqq.)

**1st amendment of 16 July 2024**

(Bulletin of the President's Office (Amtliche Bekanntmachungen des Rektorats) No. 08/2024 Part II of 25 July 2024 pp. 54 et seqq.)

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# **I. General Provisions**

## **Section 1 – Purpose of the Program of Study**

<sup>1</sup>The master's examination marks the proper completion of the master's program "Mannheim Master in Social Data Science" (M.Sc.) (Master's program MMSDS). <sup>2</sup>The completion of the master's examination constitutes the second professional qualification (consecutive degree). <sup>3</sup>It proves that the student has acquired in-depth knowledge regarding the analysis and management of complex data. <sup>4</sup>It shows that the student has the ability to analyze new problems by making use of the acquired knowledge. <sup>5</sup>In doing so, the student recognizes new requirements independently and develops new solutions for complex issues. <sup>6</sup>In addition, it serves to demonstrate whether the student has the ability to apply scientific methods and findings adequately in order to ensure a successful transition into research or the labor market.

## **Section 2 – Graduation**

<sup>1</sup>Based on the completion of the master's examination, the School of Business Informatics and Mathematics of the University of Mannheim awards the academic degree "Master of Science" (M.Sc.). <sup>2</sup>In accordance with section 33, the academic degree is only to be used after having received the diploma.

## **Section 3 – Required Coursework and Examinations; Structure, and Language of Instruction and Examination**

(1) <sup>1</sup>Coursework and examinations within the master's program total at least 120 ECTS credits and are obtained in line with the structure of each subject area:

1. Foundations of Data Science (27 ECTS credits),
2. Data Science Methods: Fundamentals (27 ECTS credits),
3. Data Science Methods: Specializations (18 bis 23 ECTS credits),
4. Data Science Applications (18 bis 23 ECTS credits),
5. Master's Thesis (30 ECTS credits).

<sup>2</sup>The detailed rules and regulations on the required ECTS credits for each subject area are specified in sections 26 to 30 in conjunction with the annex. <sup>3</sup>One ECTS credit corresponds to a workload of 30 hours. <sup>4</sup>The workload comprises the hours spent in class, the hours spent on the preparation for and the revision of classes, self-study and the hours spent on preparing for examinations, as well as the examinations themselves.

(2) <sup>1</sup>The master's program MMSDS has a modular structure. <sup>2</sup>A course usually includes technical, topical and coherent units of instruction (modules); the module Master's Thesis does not include a course. <sup>3</sup>The individual modules are organized by superordinate units (subject areas). <sup>4</sup>The composition of the subject areas and modules are specified in sections 26 to 30 in conjunction with the annex. <sup>5</sup>The content of the modules, with exception of the contents of sentence 7, is specified in the in the current version of the University of Mannheim's module catalog for the master's program Mannheim Master in Social Data Science (module catalog MMSDS); the module catalog is approved by the joint committee on student affairs and teaching of the School of Business Informatics and Mathematics and the School of Social Sciences. <sup>6</sup>If the Examination Regulations or the module catalog refer to other examination regulations or module catalogs (imported modules), the rules and regulations of said examination regulations and module catalogs apply in line with the rules and regulations of these Examination Regulations.

(3) <sup>1</sup>As a rule, the modules are taught in English; elective modules may also be taught in German. <sup>2</sup>The language of instruction of a module is indicated in the MMSDS module catalog; for the imported modules this is indicated in the external module catalog. <sup>3</sup>If a module is designated as an English-taught module in the module catalog, the course which belongs to it is held completely in English. All of the coursework and examinations (preliminary coursework and examinations) for this course are to be completed in English.

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## Section 4 – Standard Period of Study, Maximum Period of Study

- (1) The period of study for the master's program, during which all coursework and examinations required to pass the master's examination are to be completed, is four semesters (standard period of study).
- (2) <sup>1</sup>All coursework and examinations that must be completed as a part of the master's examination must be completed within a given time (maximum period of study). <sup>2</sup>The maximum period of study ends three semesters after the standard period of study at the end of the seventh semester, unless the student is not responsible for having exceeded this time. <sup>3</sup>The student will be notified by the examination committee if they have exceeded the deadline; eligibility to take exams is lost in accordance with section 32 subsection 5 sentences 4 and 5 in accordance with sentence 3 alternative 2 of the act on the higher education institutions in Baden-Württemberg (Landeshochschulgesetz, LHG).
- (3) <sup>1</sup>If a student does not pass the master's examination until the end of their sixth semester of the program, the student is recommended to seek academic advice again. <sup>2</sup>The examination committee is in charge of academic advising. <sup>3</sup>It may pass on the task to qualified staff members.
- (4) The student is responsible for meeting the deadlines listed in these examination regulations.

## II. Organization and Administration of Examinations, Recognition of Coursework and Examinations

### Section 5 – Examination Committee

- (1) <sup>1</sup>An examination committee is formed for the master's program MMSDS. It is composed of three university teachers or academic staff members who are authorized to administer examinations and who are eligible to vote, one of which must be from the School of Business Informatics and Mathematics, one must be from the School of Social Sciences, and a student member exercising an advisory function. Members of the examination committee are appointed by the school council of the School of Business Informatics and Mathematics.
- (2) <sup>1</sup>The term of office for members who are eligible to vote is three years. The student member's term of office is one year. <sup>2</sup>All members can be reappointed. <sup>3</sup>The committee members' term of office starts on 1 August of each year. <sup>4</sup>If a member of the examination committee retires from their position before the end of the term of office, a successor is appointed for the remaining term of office.
- (3) <sup>1</sup>The school council of the School of Business Informatics and Mathematics elects a member of the examination committee to be the chair and another member to be vice chair for the duration of their term of office. The chair is a university teacher of the School of Social Sciences. <sup>3</sup>The chair manages the examination committee.
- (4) <sup>1</sup>The examination committee has a quorum if the chair or vice chair and at least another member who is eligible to vote are present. <sup>2</sup>Decisions require a simple majority of votes from the members present. <sup>3</sup>In the event of a tie, the vote of the chair decides the matter.
- (5) <sup>1</sup>The members of the examination committee are obliged to exercise discretion. <sup>2</sup>If they are not employed in the public service, they must be obliged to exercise discretion by the chair of the examination committee in writing. <sup>3</sup>This obligation applies to all examination-related facts and matters
1. that the members were informed about in a non-public meeting and/or that happened to be discussed,
  2. that are to be kept secret by law,
  3. that were ordered or decided to be kept secret for the public good or in order to protect the legitimate interests of an individual,
  4. that are to be kept secret by their nature.
- <sup>4</sup>The obligation to exercise discretion continues after the term of office ends and includes discussion-related documents.

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## Section 6 – Competences of the Examination Committee

(1) <sup>1</sup>The examination committee makes all decisions in accordance with these examination regulations if no other entity is responsible. <sup>2</sup>The examination committee enforces the examination regulations. <sup>3</sup>By way of a resolution, the committee can entrust the chair with certain tasks that the committee is normally in charge of:

1. Appointment of examiners and observers,
2. Decisions on the recognition of coursework and examinations,
3. Decisions on the approval of reasons for de-registration and absence,
4. Decisions on disadvantage compensations,
5. Decisions on the extension of deadlines,
6. Decisions on breaches of procedure,
7. Declaring the failure of the final examination attempt,
8. Declaring the exceeding of the maximum period of study,
9. Decisions in appeal procedures,
10. Decisions on the substitution of coursework and examinations,
11. Decisions on the replacement of the form of examination by another form of examination requiring equal competencies.

<sup>4</sup>The resolution can be revoked at any time.

(2) In order to support the examination committee, an office can be established whose staff is mainly in charge of proceedings on behalf of the chair or their deputy.

## Section 7 – Examiners and Observers

(1) <sup>1</sup>Only university teachers, auxiliary professors (außerplanmäßige Professor\*innen), honorary professors and senior academic staff members (Privatdozent\*innen) as well as those academic members of staff who have been appointed by the President's Office in accordance with section 52 subsection 1 sentences 5 and 6 LHG are authorized to administer preliminary coursework and examinations. <sup>2</sup>An individual can only act as an observer if they have at least completed a master's degree, an equivalent degree at a higher education institution successfully, or are certified by the state in the field of the examination.

(2) <sup>1</sup>Usually, the teacher responsible for each course is appointed as examiner. <sup>2</sup>For examinations without a corresponding course, such as the "Master's Thesis", the regulations for examiners according to section 17 subsection 2 sentences 1, 2 and 5 remain unaffected.

(3) Every examiner may make use of one or several assistants for the correction of examinations or coursework; the examiner must ensure competent evaluation and grading.

(4) Examiners, observers, and assistants for the correction of examinations are obliged to exercise discretion in accordance with section 5 subsection 5.

(5) For the preliminary coursework and examinations of the imported modules, the regulations for examiners and observers apply as they are stipulated in the current version of the respective examination regulations which are referred to in the external module catalog (external examination regulations).

## Section 8 – Competences of the Student Services

(1) The Student Services are in charge of the administration of the examinations.

(2) In particular, the Student Services

1. determine and announce registration deadlines, examination dates and rooms,
2. announce the names of the examiners and notify them about the examination,
3. receive examination registrations from students, unless students register with the examiner,
4. enter the admissions and rejections for examinations into the system,
5. carry out compulsory registrations,
6. maintain student examination records,
7. enforce the deadlines specified in these examination regulations,

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8. are in charge of the technical administration of all examinations and the coordination of supervision for written examinations,
9. issue and hand out official documents, degree certificates and confirmations on coursework and examinations along with attachments.

## Section 9 – Recognition of Coursework and Examinations

(1) Coursework and examinations as well as periods of study obtained in other degree programs at official or officially recognized higher education institutions in Germany or abroad as well as at public universities of cooperative education (Berufsakademien) of the Federal Republic of Germany are recognized, provided there is no significant difference between the competences obtained and the coursework or examinations.

(2) <sup>1</sup>For the recognition of coursework, examinations and semesters completed abroad, agreements between the Federal Republic of Germany and other countries need to be taken into account, such as agreements on equivalencies in higher education (equivalency agreements) and agreements within the framework of university partnerships and double degree programs (cooperation agreements). <sup>2</sup>Furthermore, in cases of doubt regarding the equivalency of qualifications, the Central Office for Foreign Education (Zentralstelle für ausländisches Bildungswesen - ZAB) can be consulted.

(3) <sup>1</sup>Skills and qualifications obtained outside of the higher education sector are to be recognized if

1. the requirements for admission to a higher education institution are fulfilled at the time of recognition,
2. the skills and qualifications to be recognized are equivalent to the coursework and examinations to be substituted in terms of content and level, and
3. the criteria for recognition were examined as part of an accreditation.

<sup>2</sup>For recognition, the applicant has to prove that the competences they acquired outside of the higher education sector are comparable to the coursework and examinations to be substituted in terms of content and level. <sup>3</sup>For the decision on the recognition, the form of instruction is to be considered as well. <sup>4</sup>Skills and qualifications obtained outside of the higher education sector may substitute 50 percent of the master's program at most. <sup>5</sup>The regulations for the recognition of coursework and examinations at public universities of cooperative education (Berufsakademien) in Germany remain unaffected.

(4) <sup>1</sup>The examination committee decides on the recognition upon written request of the student. <sup>2</sup>It is the student's responsibility to provide the examination committee with the necessary documents for the recognition of coursework and examinations.

(5) <sup>1</sup>If coursework and examinations are recognized and the grading systems are similar, the grades must be transferred according to these examination regulations and considered for calculation of the final grade. <sup>2</sup>In order to guarantee a consistent procedure, the examination committee can pass general regulations for the conversion of grades obtained abroad within the limits of the legal provisions. <sup>3</sup>If conversion is impossible because the grading systems differ or the coursework was not graded, the work is simply marked "passed" ("bestanden"). <sup>4</sup>In this case, the coursework or examination will not be included in the final grade. <sup>5</sup>The recognition is indicated in the degree certificate and in the Transcript of Records.

(6) In case the student takes part in an examination at the University of Mannheim even though they already obtained the respective qualification elsewhere, they automatically waive the right to have the previous qualification recognized.

(7) Modules and examinations that were completed in the program of study that was a requirement for the master's program cannot be recognized.

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### III. Examination Process

#### *Part 1: Admission Requirements and Examinations*

##### **Section 10 – General Information**

(1) The examinations that are to be completed as a part of the master's examination, excluding the master's thesis, are assigned to the individual courses within the modules.

(2) Examinations or pieces of coursework which have to be successfully completed as a requirement for admission to an examination (required preliminary coursework) as well as additional admission requirements can be defined in the module catalog MMSDS. <sup>2</sup>The admission requirements for imported examinations can be found in the external module catalog.

(3) <sup>1</sup>An examination as defined in these Examination Regulations usually involves completing one or several individual pieces of coursework or examinations. <sup>2</sup>The examinations must be composed as stipulated in the respective regulations of the external module catalog. <sup>3</sup>Group examinations are permitted unless they are incompatible with the actual form of the examination. <sup>4</sup>If an examination is completed in a group, the final topic of the group examination and the assignment of respective tasks to the students must be determined by the examiner. <sup>5</sup>In case of group examinations, the individual contribution of each student to the examination must be evaluated; it must be ensured that within the joint preparation of a topic the individual contribution of each group member can clearly be separated and evaluated individually. <sup>3</sup>The respective stipulations that are set out in the external examination regulations are the basis for the specifications of the individual examinations of the imported examinations.

(4) <sup>1</sup>The composition of the individual examinations in the mandatory modules (mandatory examinations) as well as the type, form and scope or duration of the respective examinations are stipulated in the examination regulations. <sup>2</sup>If these examination regulations include alternative options for an examination, the specific examination for the respective semester can be found in the module catalog MMSDS. <sup>4</sup>The composition of the individual examinations in the elective modules (elective examinations) as well as the type, form and scope or duration of the respective elective examinations from the department of Informatics are stipulated in the examination regulations in connection with the module catalog MMSDS and for the imported elective examinations this is stipulated in the external module catalog.

(4a) <sup>1</sup>The form of a coursework or an examination designated in the attachment can be substituted by a different kind of coursework or examination or can be adapted in terms of its scope provided that both kinds of coursework or examinations are appropriate to assess the respective competencies and there are considering the organizational requirements no essential differences in the form of the coursework or examinations. <sup>2</sup>In particular, competencies are equal between written and supervised digital examinations (on campus), between written and unsupervised digital take home exams (off campus), and between oral examinations and digitally supported oral examinations. <sup>3</sup>In compliance with data protection regulations, the decision on changing the form of the examination or adapting the scope lies with the examiner and the responsible examination committee. <sup>4</sup>Students are informed of these decisions by the beginning of the lecture period of the respective semester at the latest. <sup>5</sup>The decision is to be made coherently for all examination dates of an examination of the respective semester.

(5) <sup>1</sup>Written examinations serve to prove the student's ability to solve a problem by independently applying the common methods of the field in a limited period of time and with a limited number of authorized materials. <sup>2</sup>The examiner determines the authorized materials and informs the students about it using appropriate means in due time before the examination.

##### **Section 11 – Registration and Admission to Examinations; Examination Dates**

(1) <sup>1</sup>Students need to register for all examinations. <sup>2</sup>It is the student's responsibility to register for an examination. <sup>3</sup>If a student fails an examination in the first attempt or if this attempt or the re-sit examination are deemed not taken, they will automatically be registered for the next regular examination date or it is their

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own responsibility to register again. <sup>4</sup>Students are not automatically registered for exams taking place in the next semester.

(2) <sup>1</sup>Students need to register for their examinations at the Student Services within the registration period that is determined by the Student Services, except if the examination takes place before the start of the registration period (subsection 3) or if the examination regulations stipulate that students need to register for their exam with their examiner or the examination committee. <sup>2</sup>The Student Services can extend the registration period (late registration).

(2a) <sup>1</sup>After the registration period, a registration can only be withdrawn during the withdrawal period determined by Student Services (withdrawal). <sup>2</sup>Once the withdrawal period has closed, the registration for an examination attempt is binding. <sup>3</sup>Sentences 1 and 2 also apply to examinations for which students were automatically registered. <sup>4</sup>If an examination is comprised of several components of coursework or examinations, the registration cannot be withdrawn if the student has already accepted a task of the first coursework or examination component from the examiner (participation).

(3) <sup>1</sup>If the examination takes place before the start of the registration period that is determined by the Student Services and students are therefore unable to register in student portal before the examination, students are registered bindingly as soon as they accept the task of the examination from the examiner (participation in the examination). <sup>2</sup>In this case, students are admitted to the respective examination by the examiner as soon as they are given the task; it is the students' responsibility to provide the examiner with the information that is required for their admission. <sup>3</sup>Students must indicate in the student portal that they participate in an exam within the registration deadline. <sup>4</sup>In case students must register with the examiner or the examination committee, sentences 1 to 3 apply accordingly.

(4) Examination registration and the examination procedures in the module "Master's Thesis" are subject to the regulations that are set out in section 18 apply.

(5) If an examination consists of one component, the following examination procedures must be observed:

1. supervised, written exam (written exam, digital examination – supervised (on campus) and digital take home exam – unsupervised (off campus), for which a working time is set in minutes)
  - a. <sup>1</sup>The regular examination date of a semester must take place at the start of the semester break, and the alternate examination date must take place before the following lecture period begins or at the latest during the first week of the lecture period of the following semester. <sup>2</sup>There must be at least three weeks time between announcing the results from the regular examination date and the alternate examination date. <sup>3</sup>The alternate examination date counts for the semester in which the regular date took place.
  - b. <sup>1</sup>Students can decide on their own if they want to participate in the regular or the alternate examination date.
  - c. If an examination is divided into two parts for the regular examination date, the first part is to be taken during the course of the semester while the second part is to be taken on the date of the regular examination date as defined in letter a sentence 1; for the alternate examination date both parts are to be taken together.
  - d. If an attempt was failed or deemed not taken at the regular examination date, students are automatically registered for the second (alternate) examination date of the respective semester, provided they are eligible for further examination attempts.

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## 2. Oral examinations

- a. <sup>1</sup>The regular examination date of a semester must take place until the end of the semester in which the course was taken. <sup>2</sup>The alternate examination date of a semester must take place before the following lecture period begins or at the latest during the first week of the lecture period of the following semester. <sup>3</sup>There must be at least three weeks time between announcing the results from the regular examination date and the alternate examination date. <sup>4</sup>The alternate examination date counts for the semester in which the regular date took place.
- b. <sup>1</sup>Students can only register for an examination for the regular examination date. <sup>2</sup>The examination needs to be registered with the examiner. <sup>3</sup>The registration is binding as soon as the student is informed of the examination date.
- c. If an examination attempt was failed or deemed not taken, students are responsible to register themselves for another examination date, provided they are eligible for further examination attempts.

(6) If an examination consists of several components, the following examination procedures must be observed:

1. The examination registration according to subsections 2 and 3 must be completed before the first component is completed.
2. <sup>1</sup>If the examination comprises several components that must be completed during the semester as part of a course as well as a supervised written exam, supervised digital exam or unsupervised digital take home exam, the exam is to be taken on the regular examination date according to section 5 number 1 letter a sentence 1; all other components are to be completed during the semester as part of the course (examination date of a semester). <sup>2</sup>Students can only register for the examination date of a semester. <sup>3</sup>If the examination at this examination date is failed or deemed not taken and the student is eligible for a further examination attempt, they are responsible to register themselves for another examination that is offered as part of the respective course.
3. <sup>1</sup>If an examination only consists of components that must be completed during the semester, these must be completed during the semester (examination date of a semester). <sup>2</sup>Students can only register for the examination date of a semester. <sup>3</sup>If a student fails a first attempt at an examination or the attempt is deemed not taken and the student has another attempt, they need to retake the examination at the next possible occasion during the course. <sup>4</sup>It is the students' responsibility to register for the next examination attempt.

(7) When registering for an imported examination and for the related examination procedures, the regulations that are set out in the external examination regulations must be observed.

(8) <sup>1</sup>The student is only admitted to an examination if they

1. are enrolled in the "Mannheim Master Social in Data Science" master's program,
2. meet the requirements for the examination in question, having successfully completed any preliminary coursework, and
3. did not already fail the final examination attempt for the examination that they want to be admitted for in this degree program or in another degree program.

<sup>2</sup>It is the students' responsibility to provide the office at which they register for the examination with all necessary documents for their admission. <sup>3</sup>For admission to the examination "Master's Thesis" the stipulations of section 16 apply additionally.

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## Section 12 – Type and Form of Coursework and Examinations

(1) The types and forms of coursework and examinations are as follows:

1. written tasks in the form of written exams, term papers, digital take home exams - unsupervised (off campus), written reports, project reports, peer reviews, and master's thesis;
2. oral tasks, among others in the form of oral examinations;
3. digital coursework and examinations including in the form of supervised digital examinations (on campus) and unsupervised digital take home exams (off campus), as far as exam problems are being displayed on a computer screen and the respective answers are being typed directly at the computer.
4. practical tasks in the form of project-related papers.
5. oral tasks in the form of presentations and oral examinations.

(2) Apart from the required preliminary coursework, examiners may include further requirements in the module catalog MMSDS in order to be admitted to an examination such as homework, practical programming projects, or written and oral reports.

(3) <sup>1</sup>The coursework or examination designated in the annex can be substituted by a different kind of coursework or examination or can be adapted in terms of its scope provided that both kinds of coursework or examinations are appropriate to assess the respective competencies and there are considering the organizational requirements no essential differences in the form of the coursework or examinations. <sup>2</sup>The decision on changing the form of the examination or adapting the scope lies with the examiner and the responsible examination committee. <sup>3</sup>Students are informed of these decisions by the beginning of the lecture period of the respective semester at the latest. <sup>4</sup>The decision is to be made coherently for all examination dates of an examination of the respective semester.

## Section 13 – Oral Examinations

(1) <sup>1</sup>Oral examinations are conducted by an examiner in the presence of an observer. <sup>2</sup>Observers have an advisory role in the oral examination. <sup>3</sup>Oral examinations are usually conducted as an individual assessment. <sup>4</sup>Oral examinations are to last at least 15 and no more than 45 minutes. <sup>5</sup>In individual cases, the oral examination can be conducted with several examinees as a group assessment; this decision is made by the examiner. <sup>6</sup>The duration of a group assessment is to allow for each student to be examined for at least 15 minutes and no more than 45 minutes.

(2) <sup>1</sup>Minutes from the examination (Ergebnisprotokoll) are to be taken during the main course of the oral examination. <sup>2</sup>For oral examinations, the examiner must bring in a person familiar with the field of study as secretary to take the minutes. <sup>3</sup>The secretary may act as an observer at the same time. <sup>4</sup>The result from this examination, which must be communicated to the student shortly after its completion, is to be recorded in the minutes. <sup>5</sup>The minutes are to be signed by the examiner, the secretary and the observer, and must be included in the examination records.

(3) <sup>1</sup>Oral examinations can be conducted with digital support; oral examinations are considered to be conducted with digital support if not all examiners and examinees attend the examination in person, but via electronic means of communication. <sup>2</sup>In compliance with data protection regulations, the decision according to sentence 1 lies with the examiner or the examination committee of the respective oral examination. <sup>3</sup>Students will be informed of this decision by the beginning of the examination registration period preceding the examination date at the latest. <sup>4</sup>The regulations of section 32a LHG, in particular regarding examinations with video supervision, remain unaffected.

## Section 14 – Written Examinations

(1) Written examinations are to last at least 20 and no more than 180 minutes.

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(2) <sup>1</sup>As a rule, written examinations shall not be conducted in the form of multiple-choice examinations. <sup>2</sup>In exceptional cases with valid reasons, written examinations may be conducted completely or in part as multiple-choice examinations. <sup>3</sup>In case an examination is conducted as multiple-choice throughout, the tasks must allow for reliable examination results. <sup>4</sup>When designing the examination, the examiner must determine which answers are accepted as correct and how the scoring system works. <sup>5</sup>If, during the assessment of the examination, it turns out that single exercises do not lead to reliable results, they must not be considered for the calculation of the examination's result. <sup>6</sup>The minimum passing score is to be adjusted accordingly; lowering the passing score must not have negative implications for the students. <sup>7</sup>The examination is passed if a student achieves at least the minimum passing score determined before the exam. If a student does not achieve the minimum passing score, they might still pass the exam provided his or her performance was good enough to be among the set minimum rate of students that will pass the exam regardless of the results (pass rate; pass rate + failure rate = 100%). <sup>8</sup>If the examination is only partly multiple-choice, the regulations of this section apply to that part respectively.

(3) The examination supervisors must take minutes for each written examination. The minutes must be signed and included in the examination records unless the type of examination is not suitable for minutes.

(4) <sup>1</sup>When evaluating a project-related paper, a written draft paper, a term paper or similar pieces of work for academic performance, the examiner is to ascertain the quality of research and the quality of academic work. <sup>2</sup>If data and implementations are to be submitted, the student must provide them to the examiners in adequate form when submitting the written tasks. <sup>3</sup>The examiner informs the students at the latest if this is necessary when they give them the topic for the written task. <sup>4</sup>The students are responsible for providing the required information outlined in sentence 2.

(5) <sup>1</sup>For the grading of their work, students must submit a digital data file and a hard copy of their work to the examiners. <sup>2</sup>The work must be anonymized before the plagiarism check. <sup>3</sup>When submitting coursework as defined in sentence 1, the student must submit the following signed declaration:

*"I hereby declare that the paper presented is my own work and that I have not called upon the help of a third party. In addition, I affirm that neither I nor anybody else has submitted this paper or parts of it to obtain credits elsewhere before. I have clearly marked and acknowledged all quotations or references that have been taken from the works of others. All secondary literature and other sources are marked and listed in the bibliography. The same applies to all charts, diagrams and illustrations as well as to all Internet resources. Moreover, I consent to my paper being electronically stored and sent anonymously in order to be checked for plagiarism. I am aware that if this declaration is not made, the paper may not be graded."*

(6) <sup>1</sup>In digital take home exams – unsupervised (off campus), students demonstrate that they can complete a task or solve a problem independently within limited time, either with or without authorized resources. <sup>2</sup>These examinations can be provided in hard copy or digitally; the completed examination prepared by the students in electronic or handwritten form must be submitted digitally in a way specified by the university and in a file format approved by the university; section 14a subsection 2 remains unaffected. <sup>3</sup>For unsupervised digital take home exams (off campus), a reasonable amount of time for downloading the examination and uploading the completed examination is provided in addition to the actual working time that is set in minutes; students are not allowed to work on the examination during this time; it is the responsibility of the students to start the download and upload in a timely manner to ensure that it can be completed within the allocated time frame. <sup>4</sup>If students do not submit examinations within the allocated upload period in accordance with the requirements, this is considered failure to attend the examination (no-show); in this case, the examination is graded with "failed" (5.0 or nicht bestanden), unless the student is not responsible for exceeding the upload period. <sup>5</sup>The examination committee is responsible for determining whether the upload period has been exceeded. <sup>6</sup>A handwritten signature is not required for unsupervised digital take home exams (off campus); instead, students must submit a declaration stating that they have completed the examination on their own and have only used the authorized resources. <sup>7</sup>In all other aspects, the regulations on written examinations apply accordingly for unsupervised digital take home exams (off campus), for which a working time is set in minutes.

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<sup>8</sup>The regulations of section 32a LHG, in particular regarding examinations with video supervision, remain unaffected.

#### **Section 14a – Digital coursework and examinations**

- (1) In digital examinations, students demonstrate that they can complete a task or solve a problem independently within a limited time in an examination environment set up by the university, either with or without authorized resources.
- (2) <sup>1</sup>Unsupervised digital take home exams (off campus) and supervised digital examinations (on campus) are digital examinations if the examination questions of the relevant examination are displayed on a computer screen and the answers are entered immediately on this computer. <sup>2</sup>If a relevant examination is not exclusively but partially conducted this way, sentence 1 applies to this part accordingly.
- (3) Digital examinations can only be conducted partly or in full in the form of multiple choice examinations, if the tasks are given and assessed by the same person.
- (4) The regulations of section 32a LHG, in particular regarding examinations with video supervision, remain unaffected.

#### **Section 14b – Obligation to Cooperate During Digitally Supported Examinations**

- (1) Digitally supported examination formats within the meaning of this regulation are unsupervised digital take home exams (off campus), supervised digital examination (on campus), digital oral examinations, as well as all examinations in which the work is performed directly on a computer or the submission of the completed examination is done electronically.
- (2) <sup>1</sup>In the case of digitally supported examination formats where the university does not provide supervision at the student's respective location, students must cooperate in ensuring examination security; it is particularly important to guarantee the means of verification that are intended to ensure independent performance in the examinations. <sup>2</sup>Students are to remain in a quiet room throughout the entire examination, including the download and upload period. <sup>3</sup>Any form of contact with other persons during this time is to be prevented; examiners are not considered other persons within the meaning of this regulation; the same applies to technical support staff of the university if they are responsible for the technical support of the respective examination and the contact solely serves to resolve a technical issue.
- (3) <sup>1</sup>If the university does not provide technical equipment for the respective examination, students themselves are responsible to ensure that their technical equipment works properly; they are responsible for must making sure that their technical equipment is suitable for the intended purpose in due time before the exam. <sup>2</sup>Section 32b LHG remains unaffected. <sup>3</sup>If the cause for a technical error cannot be clearly determined, students who claim such a technical error can be imposed with the condition to take examinations exclusively on campus and with equipment provided by the university for additional examination attempts and other examinations
- (4) The university is required to provide students with the opportunity to test the environment for examinations with video supervision in accordance with section 32a LHG with regard to its (technical) equipment and facilities. Students are obliged to make use of this opportunity in due time before the examination.
- (5) <sup>1</sup>If digital examinations are conducted on campus and under the supervision of the university, the examiner decides whether students must bring their own device to take the examination or whether a device provided by the university is to be used. <sup>2</sup>If students are permitted to use their own device for examinations within the meaning of sentence 1 and it is necessary to avoid cheating and attempts to cheat, students are required to install a browser specified by the university on their devices which is to be started in due time before the examination and used throughout the entire examination. <sup>3</sup>If the devices are provided by the university the prescribed browser is installed by the university; in all other respects, sentence 2 applies accordingly. <sup>4</sup>If students close the prescribed browser during the examination period, the examination is deemed to have

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been completed without the submission of any work. <sup>5</sup>In cases of hardship, in particular in the event of a sudden defect of their device, students may use a device provided by the university to take the digital examinations referred to in sentence 1. <sup>6</sup>Students who have to use a device provided by the university, must contact the examination coordination of the university in due time before the examination.

### **Section 15 – Examination in the Module “Seminar and Lab on Machine Learning and Causal Inference”**

(1) <sup>1</sup>By completing this mandatory examination, the student is to prove that they acquired the skills to read academic literature about a specialist subject and to apply the content to an issue as well as to present and discuss the scientific issue. <sup>2</sup>The examination in the module Seminar consists of a written work about a topic that is assigned to the students as well as of a presentation about a preliminary or a final version of this written work which may be complemented by peer reviews.

(2) <sup>1</sup>The student has two attempts to successfully complete the examination in the module Seminar. <sup>2</sup>The students are responsible for registering for each attempt of the examination in the module Seminar with the examiner; outside the registration periods of the Student Services, the students can register their examination with the examiner. <sup>3</sup>At the beginning of a seminar, the examiner assigns topics to the students and determines the date of the examination. <sup>4</sup>Once the students receive their topic they are registered bindingly for the examination and are admitted to the examination in the module Seminar. <sup>5</sup>If an examination attempt was failed or deemed not taken, the student must retake the examination in one of the following semesters in another seminar and is responsible for registering again with the examiner; an additional attempt in the same seminar is not possible.

(3) The Student Services must be informed about the students who are admitted to the examination in their seminar.

### **Section 16 – Examination in the “Module Master’s Thesis”**

(1) <sup>1</sup>The master’s thesis is a mandatory module with an examination of the same title. <sup>2</sup>By completing the master’s thesis, the students are to prove that they have acquired the skills and proficiency to work independently on scientific and subject-specific questions in their field of study by using scientific methods within a limited period of time. <sup>3</sup>This examination must be completed as an individual examination. <sup>4</sup>The examination in the module Master’s Thesis is to be completed in English.

(2) <sup>1</sup>The master’s thesis will be evaluated by two examiners. <sup>2</sup>The university teacher who assigns the topic of the master's thesis to the student is the main examiner. <sup>3</sup>The main examiner is also the supervisor and may assign further people as supervisors who have completed at least a master’s degree or an equivalent degree at a higher education institution successfully. <sup>4</sup>The supervisor advises the student on any questions to do with the production of the master’s thesis; the individual performance and the students’ self-reliance for the thesis must be maintained. The second examiner is appointed by the examination committee based on the recommendation of the main examiner.

(3) <sup>1</sup>The student is responsible for registering each attempt of the master’s thesis with the main examiner in due time; this also applies if an attempt has been deemed not taken. <sup>2</sup>As a requirement for admission to the master’s thesis, the student must obtain at least 60 ECTS credits. <sup>3</sup>The student is responsible for providing the main examiner with the information required for admission; in particular, a Transcript of Records is to be submitted. <sup>4</sup>The main examiner ensures that this requirement has been fulfilled before allocating the topic to the student. <sup>5</sup>Once the topic has been assigned to a student, the exam registration is binding and the student is admitted to write their master’s thesis.

(4) <sup>1</sup>The main examiner determines and allocates the topic to the student. The topic for the master’s thesis has to be from the fields of social sciences, economics, particularly sociology, political science, business administration or media and communication studies. <sup>2</sup>Students must be granted the chance to make suggestions for their topic; however, no legal right arises to be assigned to the suggested topic.

(5) <sup>1</sup>The preparation period for the master’s thesis is six months. <sup>2</sup>The preparation period begins once the topic of the master’s thesis has been allocated to the student. <sup>3</sup>In case of valid reasons and upon written request from

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a student, which must be submitted in due time, the preparation period may be paused and the submission deadline extended for a period that is to be determined on a case-by-case basis. <sup>4</sup>A request is to be made to the examination committee immediately once the student is aware of the circumstances justifying an extension and is only possible within the preparation period. <sup>5</sup>Should the request not be made in due time, the circumstances justifying an extension are considered irrelevant for the examination attempt concerned. <sup>6</sup>If the preparation period must be paused and the submission deadline is extended for professional reasons, sentences 3 to 5 apply accordingly provided that the main examiner agrees. <sup>7</sup>Sections 24 and 25 remain unaffected.

(6) <sup>1</sup>The master's thesis must be submitted in due time to the main examiner in duplicate as a hard copy and as a digital data file. <sup>2</sup>The student must submit a declaration according to section 14 subsection 5 when submitting their master's thesis.

(7) <sup>1</sup>When evaluating the master's thesis for academic performance, section 14 subsection 4 applies accordingly. <sup>2</sup>If data and implementations must be submitted, the examiner informs the student of the requirement no later than when the topic is assigned.

(8) <sup>1</sup>If the master's thesis is not submitted completely in due time under consideration of subsection 7, it will be graded "failed" (5.0, "nicht ausreichend"). <sup>2</sup>A master's thesis submitted completely in due time will be evaluated by both examiners of the master's thesis. <sup>3</sup>If the grades given by the two examiners differ, the grade awarded for the master's thesis must be the grade as defined in section 17 subsection 2 which comes closest to the arithmetic average of both individual grades. If in doubt, the better of the two grades is to be awarded. <sup>4</sup>If the calculated average in line with sentence 3 is 4.1 or worse, the master's thesis is graded 5.0 ("nicht ausreichend").

(9) The topic of the master's thesis, the date on which the student was allocated the topic and the date on which the thesis is to be submitted are to be communicated to the Student Services.

## **Section 17 – Grading of Examinations and Coursework, Calculation of Grades for Individual Examinations and Coursework and Module Grades**

(1) <sup>1</sup>The examiner assesses examinations or coursework either with a grade (examination) or without a grade with "(not) passed" (coursework or examination). <sup>2</sup>The assessment is to be completed within four weeks; for the master's thesis within two months. <sup>3</sup>If coursework or an examination is not completed in due time, it is considered "failed" or graded 5.0 ("nicht ausreichend").

(2) <sup>1</sup>The following grades may be assigned:

<i>Numerical Value</i>	<i>Grade</i>	<i>Explanation</i>
1.0 or 1.3	very good ("sehr gut")	an excellent performance
1.7; 2.0 or 2.3	good ("gut")	a performance which is substantially above the average requirements
2.7; 3.0 or 3.3	satisfactory ("befriedigend")	a performance corresponding to the average requirements
3.7 or 4.0	fair ("ausreichend")	a performance which, in spite of its flaws, suffices to meet the requirements
5.0	failed ("nicht ausreichend")	a performance which does not meet the requirements due to considerable flaws

<sup>2</sup>For grading the master's thesis, section 16 subsection 8 sentences 2 to 4 remain unaffected.

(3) If an examination comprises only one component, the overall examination grade equals the grade of the component.

(4) <sup>1</sup>If an examination comprises several components, the overall examination grade equals the grade closest to the weighted average grade calculated using the grades of the components. <sup>2</sup>The weighted average grade is calculated to one decimal place; all further decimal places are excluded without rounding. <sup>3</sup>The examination grades according to their weighted average are:

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1.0 up to and including 1.1	= 1.0
above 1.1 and up to and including 1.5	= 1.3
above 1.5 and up to and including 1.8	= 1.7
above 1.8 and up to and including 2.1	= 2.0
above 2.1 and up to and including 2.5	= 2.3
above 2.5 and up to and including 2.8	= 2.7
above 2.8 and up to and including 3.1	= 3.0
above 3.1 and up to and including 3.5	= 3.3
above 3.5 and up to and including 3.8	= 3.7
above 3.8 and up to and including 4.0	= 4.0
4.1 or worse	= 5.0

<sup>4</sup>The weighting of individual examination and coursework components for the calculation of the respective grade are determined in the annex.

(5) For the grading of imported examinations and the corresponding preliminary coursework as well as for the calculation of the examination grades only the regulations that are set out in the external examination regulations apply.

(6) The module grade equals the examination grade.

## Section 18 – ECTS Credits

<sup>1</sup>The examination must be passed for ECTS credits to be awarded. <sup>2</sup>The examination process ends when the examination is passed.

## Section 19 – Failing and Redoing Coursework or Retaking Examinations (including Examinations and Preliminary Coursework), Failing the Final Examination Attempt

(1) Failed examinations or coursework are those that are graded “failed” (“nicht bestanden”) or 5.0 (“nicht ausreichend”).

(2) <sup>1</sup>If an examination consists of one piece of coursework or one examination, it is considered “failed” (“nicht bestanden”) if said piece of coursework or examination has been failed. <sup>2</sup>If an examination consists of several pieces of coursework or examinations, the examination is failed if the calculated examination grade equals “5.0” (“nicht ausreichend”) or if one of the required pieces of coursework was assessed “not passed”.

(3) <sup>1</sup>Coursework or examinations which were done as required preliminary coursework for an examination and subsequently failed may be redone; it is not possible to redo the preliminary coursework in the same semester. <sup>2</sup>If the student passes the preliminary coursework for an examination but fails the related examination in the same semester or if the attempt on the last possible examination date of the semester is deemed not taken, the required preliminary coursework usually must be redone and passed. <sup>3</sup>The examiner of the retake examination decides on exceptions upon request of a student. <sup>4</sup>The request is to be submitted in due time and before the examination in question takes place, otherwise the preliminary coursework is to be redone.

(4) <sup>1</sup>Failed examinations may generally be retaken once (resit examination). <sup>2</sup>If a student fails an examination in the resit examination, this examination is failed with no option to resit. <sup>3</sup>Failing the final attempt at an examination terminates the examination process.

(5) <sup>1</sup>Deviating from subsection 4 sentence 1, a student who fails a resit examination in the subject areas “Foundations of Data Science” and “Data Science Method: Fundamentals”, which are specified as mandatory in the annex, is granted a maximum of two second resit examinations in these subject areas over the course of the master’s program (jokers). <sup>2</sup>This does not apply for the examination according to section 15 in the module “Seminar and Lab on Machine Learning and Causal Inference”.

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(6) <sup>1</sup>When retaking an examination consisting of several components, all examination components are to be retaken. <sup>2</sup>It is not possible to retake an examination that has already been passed.

## **Section 20 – Breaches of Procedure**

(1) <sup>1</sup>The examination committee can remedy disturbances of the examination procedure or other breaches of procedure by virtue of office or upon request from a student by deciding on appropriate measures or orders. <sup>2</sup>In particular, the examination committee may order that coursework or examinations must be retaken by all or by individual students or, in case the principle of equal opportunity was violated, grant an extension or impose another appropriate measure of compensation.

(2) <sup>1</sup>Any disturbances of the examination procedure must be reported immediately by the affected student during the examination:

1. in case of a written examination to the supervisor,
2. in case of an oral examination to the examiner and
3. in case of another type of examination to the examiner.

<sup>2</sup>Any other kinds of breaches of procedure are to be reported by the affected student in due time as soon as the student learns of a particular breach of procedure. <sup>3</sup>The reports according to sentences 1 and 2 must be entered into the examination minutes. <sup>4</sup>If the disturbances of the examination procedure or any other kind of breaches of procedure relevant to the evaluation of the respective examination are not reported in due time, they are deemed insignificant.

(3) <sup>1</sup>If the examination committee did not take measures of compensation in accordance with subsection 1 for a disturbance that occurred during an examination and was reported without delay or for other breaches of procedure, or those measures were inadequate, the student must address their request for the necessary measures of compensation to the examination committee in writing immediately after the examination. If the examination consisted of several parts, the request must be made immediately after the relevant part of the examination. <sup>2</sup>The request is not to contain any conditions. <sup>3</sup>If the request is not made in due time, the disturbances of the examination procedure or any other kind of breaches of procedure relevant to the evaluation of the respective examination are deemed insignificant.

(4) <sup>1</sup>In addition to the responsibility of the examination committee as in subsection 1, measures to compensate for procedural errors that cannot be postponed can be taken by the examiner, the examination committee or the supervisor of the exam in question. <sup>2</sup>A measure is deemed not to be postponed, when a decision of the examination committee cannot be obtained in time; this applies particularly in case of sudden disruptions of the examination, when waiting for a decision of the committee does not make sense, as the remaining examination seems to be in jeopardy. <sup>3</sup>In case measures are being taken that are deemed not to be postponed, the examiner, the examination commission or the supervisor of the exam in question informs the responsible examination committee without delay about the decisions that were taken.

## **Section 21 – Access to Examination Records**

(1) The students must be granted access to their graded written examinations upon written request submitted within an appropriate period of time. This includes the written examination, the respective evaluation(s) of the examiner(s) and the minutes of each examination.

(2) <sup>1</sup>The request must be submitted to the chair or the Student Services within one year after having received the result of the respective examination. <sup>2</sup>They decide on the time and place for accessing the examination records.

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## ***Part 2: Disadvantage Compensation***

### **Section 22 – Extending the Maximum Period of Study**

(1) The examination committee may extend the maximum period of study upon written request from a student, which is submitted in due time, if the respective student is in need of an extension due to special conditions they are not responsible for. The examination committee may grant individual extensions based on case by case decisions.

(2) <sup>1</sup>In particular, this applies to students

1. with children, or
2. with a relative in need of care within the meaning of section 7 subsection 3 of the Caregiver Leave Act (PflegeZG),  
or
3. with a disability, or
4. with a chronic illness

if the situation resulting from the aforementioned special conditions requires an extension of the examination deadlines. <sup>2</sup>The same applies to students who are eligible for periods of protection in accordance with section 3 subsections 1 and 2 of the maternity protection act (*Mutterschutzgesetz, MuSchG*).

(3) <sup>1</sup>A request in accordance with subsection 1 must be submitted immediately as soon as the student is aware of the circumstances demanding an extension of examination deadlines. <sup>2</sup>If the request is not made in due time in accordance with sentence 1, the extension may only be granted if additional requirements according to section 32 of the administrative procedure act of the Land of Baden-Württemberg (*Landesverwaltungsverfahrensgesetz, LVwVfG*) are met.

(4) <sup>1</sup>The student requesting the extension is responsible for producing adequate proof. <sup>2</sup>If there are significant changes to the personal situation of the student, particularly any changes that would result in a lapse of entitlement to the extension, the student is obliged to inform the examination committee without delay.

(5) The extension of the maximum period of study must not exceed the number of semesters of the standard period of study provided there are no legal regulations indicating otherwise.

(6) <sup>1</sup>The preceding subsections do not apply to extensions of preparation periods and submission deadlines for examinations or coursework. <sup>2</sup>The option of requesting disadvantage compensation in accordance with section 23 remains unaffected.

(7) When calculating the maximum period of study, section 32 subsection 6 LHG must be taken into consideration.

### **Section 23 – Disadvantage Compensation**

(1) <sup>1</sup>If students, as a result of a special condition or situation within the meaning of section 22 subsection 2, cannot take the respective examination or complete a piece of coursework, in particular due to the form of examination, they can request disadvantage compensation. Students must submit the request for disadvantage compensation in due time and in writing. In coordination with the respective examiners, the examination committee grants the appropriate disadvantage compensation in order to adhere to the principle of equal opportunity. <sup>2</sup>Disabled students or students with a chronic illness must submit their request for disadvantage compensation to the commissioner and counselor for disabled students and students with chronic illnesses. The examination committee is obliged to take the recommendation of the commissioner and counselor for disabled students and students with chronic illnesses into account in their decision-making process.

(2) <sup>1</sup>A request as outlined in subsection 1 is to be made in due time before the coursework or examination concerned is started. Where it is the responsibility of the student to register for coursework or an examination, the request is to be submitted by the end of the registration period at the latest. <sup>2</sup>If the request is not made in due time in accordance with sentence 1, the extension may only be granted if additional requirements according to section 32 LVwVfG are met. <sup>3</sup>If students fail to submit the request for disadvantage compensation in due time in accordance with sentences 1 or 2, their particular circumstances will not be considered for the

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evaluation of the respective coursework or examination. <sup>4</sup>The possibility to withdraw or de-register from an examination or piece of coursework with a valid reason remains in effect.

(3) <sup>1</sup>The student requesting disadvantage compensation is responsible for producing adequate proof. <sup>2</sup>If there are significant changes to the personal situation of the student before or during the claim for disadvantage compensation, particularly any changes that would result in a lapse of entitlement, the student is obliged to inform the examination committee without delay and in writing.

## **Section 24 – De-registration and Absence**

(1) <sup>1</sup>If a valid reason, especially illness, prevents the student from entirely or partially taking an examination, they may request the approval of the reasons for de-registration or withdrawal. <sup>2</sup>If an examination comprises of several components, a request can only be submitted for the examination as a whole.

(2) <sup>1</sup>The request is to be submitted immediately without undue delay, in written form, to the Student Services office. The examination committee decides on the approval of the request. <sup>2</sup>The student seeking approval is responsible for producing adequate proof. <sup>3</sup>If the student is ill, they must submit a medical certificate to the Student Services. This certificate must include the medical diagnosis which confirms that the student is not able to take the examination. <sup>4</sup>If the student has a child who is sick, or a relative who is in need of care, proof of this responsibility is to be submitted.

(3) The approval of the request is ruled out if the examination result has been published, unless valid proof could not be provided earlier by the student due to reasons beyond their control.

(4) In case the student is not able to take a mandatory examination for which they are registered due to a period of study at a university abroad, this, in particular, will be recognized as a valid reason.

(5) <sup>1</sup>If the student took an examination whilst being aware of an illness or on the basis of negligent lack of knowledge of an illness, a de-registration for this reason cannot be approved. <sup>2</sup>In particular, the criteria for negligent lack of knowledge are met if the student did not react to symptoms of health problems as soon as possible.

(6) <sup>1</sup>If de-registration is approved, the examination is deemed not taken and it will be mandatory for the student to register for the next possible examination date.

(7) <sup>1</sup>If a request for de-registration is not approved, the request is to be deemed not made. <sup>2</sup>In this case, the examiner grades an examination handed in by the student in due time; if the student did not hand in an examination in due time, the examination will be graded “failed” (5.0, “nicht ausreichend”) or “not passed”.

(8) <sup>1</sup>The student may de-register from required preliminary coursework without providing proof of a valid reason. <sup>2</sup>In such cases, admission to the examination must be ruled out for the semester in question, unless, upon request from the student, the examiner responsible allows the completion of different preliminary coursework as an alternative. <sup>3</sup>The request is to be granted if, upon consideration, the significance of preliminary coursework is relative to the reasonable interests of the student. <sup>4</sup>Section 23 remains unaffected.

## **Part 3: Master’s Examination**

### **Section 25 – Master’s Thesis**

(1) The master’s examination is passed if all required examinations in accordance with sections 27 to 30 in conjunction with the annex are completed within the maximum period of study.

(2) The master’s examination comprises examinations from five subject areas which are composed of mandatory examinations amounting to 84 ECTS credits, and elective examinations amounting to at least 36 ECTS credits.

### **Section 26 – Subject Area Foundations of Data Science**

(1) Three mandatory examinations, amounting to 27 ECTS credits, are to be passed.

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(2) If the student fails their final attempt at one of the mandatory examinations, the examination committee notifies them, in writing, that the respective mandatory examination has been failed and cannot be re-taken; the student loses their eligibility to take exams in accordance with section 32 subsection 5 (3.1) LHG.

## **Section 27 – Subject Area Data Science Fundamentals**

(1) Three mandatory examinations amounting to 27 ECTS credits, are to be passed.

(2) If the student fails their final attempt at one of the mandatory examinations, the examination committee notifies them, in writing, that the respective mandatory examination has been failed and cannot be re-taken; the student loses their eligibility to take exams in accordance with section 32 subsection 5 (3.1) LHG.

## **Section 28 – Subject Area Data Science Specializations**

(1) <sup>1</sup>In the subject area “Data Science Methods: Specializations”, students must pass elective examinations amounting to at least 18 ECTS credits. <sup>2</sup>This subject area is completed once these examinations are passed.

(2) <sup>1</sup>It is the students’ responsibility to choose modules and examinations to obtain the minimum number of ECTS credits. <sup>2</sup>The extensive number of modules available for selection including the respective ECTS credits that can be obtained can be found in the annex in conjunction with the module catalog MMSDS; for imported elective modules this information can be found in the external module catalog that is mentioned in the module catalog MMSDS.

(3) <sup>1</sup>If, by passing an elective examination in this subject area, the student meets or exceeds the 18 ECTS credits required in this subject area, the additional elective examinations passed in the same semester are not taken into account for the successful completion of the master’s examination, or the calculation of the subject area grade and the final grade. <sup>2</sup>Whether additional elective examinations are taken into account depends on the chronological order of the examinations taken in the respective semester. <sup>3</sup>The elective examinations to be considered are used to calculate the grade for the respective subject area under which they are listed in area tables in the annex in connection the (external) module catalog. <sup>4</sup>The elective examinations not taken into account are to be listed on the Transcript of Records as additional examinations with the respective assessment. <sup>5</sup>In case the student is still involved in examination processes at the end of the examination date, in which the exams according to sentence 1 were passed, this examination processes end with the passing of the master’s examination.

(4) <sup>1</sup>If an elective examination is failed with no option to re-sit, the student must register for another available elective examination in order to obtain the minimum number of required ECTS credits. <sup>2</sup>If students fail their final attempt at an elective examination, the examination committee does not issue a notification; students do not lose their eligibility to take exams in accordance with section 32 subsection 5 sentence 3 alternative 1 LHG.

## **Section 29 – Subject Area Data Science Applications**

(1) <sup>1</sup>In the subject area “Data Science Applications”, students must pass elective examinations in line with the module catalog amounting to at least 18 ECTS credits. <sup>2</sup>Elective examinations from the modules available from the School of Social Sciences amounting to 12 ECTS credits need to be passed. <sup>3</sup>In all other respects the regulations of section 28 for the Subject Area „Data Science Methods: Specializations“ apply.

## **Section 30 – Subject Area Master’s Thesis**

(1) The mandatory master’s thesis, corresponding to 30 ECTS credits, must be successfully completed. <sup>2</sup>The regulations stated in section 16 apply to this examination in particular.

(2) <sup>1</sup>If a student fails this mandatory examination with no option to resit, the examination committee officially notifies them, in writing, that the respective mandatory examination has been failed and cannot be retaken.

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<sup>2</sup>The student loses their eligibility to take exams in accordance with section 32 subsection 5 sentence 2 alternative 1 LHG.

### **Section 31 – Calculation of the Subject Area Grade, Grading of the Master’s Examination (Final Grade)**

(1) <sup>1</sup>The subject area grade is calculated using the grades achieved in the modules belonging to an area, weighted according to the number of ECTS credits allocated to the module; additional modules are not taken into consideration when calculating subject area grades. <sup>2</sup>In the subject area “Master’s Thesis”, the subject area grade equals the module grade.

(2) The final grade of the master’s examination is calculated from the average of the subject area grades weighted in ECTS credits.

(3) <sup>1</sup>For the subject area grades in line with subsection 1 sentence 1 as well as the final grade, only the first decimal place is of importance; all other decimal places are eliminated without rounding up or down. <sup>2</sup>In line with sentence 1, the grades are as follows:

- in case of an average grade of 1.5 or better = “very good” (“sehr gut”);
- in case of an average grade from 1.6 to 2.5 = “good” (“gut”);
- in case of an average grade from 2.6 to 3.5 = “satisfactory” (“befriedigend”);
- in case of an average grade from 3.6 to 4.0 = “fair” (“ausreichend”).

(4) In case the final grade is 1.2 or better, the student graduates “with honors” (“mit Auszeichnung bestanden”).

(5) <sup>1</sup>Prior to having received the final grade, students are given a preliminary average grade that is indicated on the Transcript of Records. <sup>2</sup>The regulations on calculating and indicating the final grade are also applied to the preliminary average grade.

### **Section 32 – Master’s Degree Certificate**

(1) <sup>1</sup>After successful completion of the master’s examination, the student is issued a German degree certificate. <sup>2</sup>This comprises:

1. the areas in section 3 subsection 1(1) numbers 1-5; areas are listed with the corresponding number of ECTS credits and the subject area grade (in words and figures);
2. the topic of the master’s thesis and the name of the examiner;
3. the grade awarded for the master’s thesis (in words and figures);
4. the final grade (in words and figures);
5. if applicable, the honors according to section 31 subsection 4.

<sup>3</sup>The certificate dates back to the day of completion of the last examination. <sup>4</sup>If it is not possible to determine this date, the last day of classes of the respective semester serves as the date of completion. <sup>5</sup>The certificate must be signed by the chair or deputy chair of the examination committee.

(2) <sup>1</sup>An English Diploma Supplement in accordance with the European Diploma Supplement model is attached to each certificate. <sup>2</sup>A Transcript of Records forms part of the Diploma Supplement comprising all completed modules and the respective examinations including the issued ECTS credits and grades; all completed additional modules and the respective examinations including the grades are listed as well.

(3) <sup>1</sup>The Diploma Supplement also contains an ECTS Grading Table in accordance with the ECTS guidelines. <sup>2</sup>The ECTS Grading Table contains a list of the percentage distribution of the final grades obtained by graduates of the “Mannheim Master in Social Data Science” (M.Sc.) program. <sup>3</sup>The ECTS Grading Table is produced annually in June. <sup>4</sup>The calculation is based on the final grades of all graduates who have completed their program of study in the last three years. <sup>5</sup>The chair of the examination committee decides for each class whether or not a relative grade is given. <sup>6</sup>They may decide to take further classes into account for the calculation.

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## Section 33 – Diploma

<sup>1</sup>Along with the master's degree certificate, the candidate receives a bilingual diploma in German and English certifying the conferment of the academic degree, which includes the final grade for the master's examination and if applicable the honors according to section 31 subsection 4. <sup>2</sup>The diploma bears the date of the master's degree certificate. <sup>3</sup>The diploma is signed by the dean of the school or their deputy and bears the seal of the University of Mannheim.

## *Part 4: Violation of the Examination Regulations*

### Section 34 – Cheating and other Misconduct

(1) <sup>1</sup>If a student manipulates or tries to manipulate their examination by cheating or using unauthorized resources or by influencing the examiner or supervisor in favor of themselves or a third person, the respective examination or further examinations may be graded "failed" or the student may be excluded from the examination depending on the severity of the violation. <sup>2</sup>In particularly severe cases, the student can be excluded without the option to retake the examination. <sup>3</sup>It is also considered cheating according to sentence 1 if coursework or examinations contain quotations or references from the works of others which have not been indicated as such by the student.

(2) <sup>1</sup>If a student tries to have coursework and/or examinations completed abroad recognized on the basis of false information, the coursework or examinations they are to substitute are graded "failed". <sup>2</sup>In case of mandatory courses, the coursework or examinations to be substituted must be submitted or taken on the next possible date at the University of Mannheim.

(3) <sup>1</sup>A student who violates the examination regulations severely, in particular, if they disturb the proper course of an examination, may be excluded from the examination by the examiner or the supervisor. <sup>2</sup>In such cases, the relevant coursework or examination is graded "failed". <sup>3</sup>In severe cases, the examination committee may exclude the student from taking any further examinations.

(4) The examination committee or the examiners of written examinations and coursework are authorized to use software recommended by the University of Mannheim to detect plagiarism.

### Section 35 – Voidness of the Master's Examination

(1) <sup>1</sup>In case a student has manipulated an examination by cheating and this fact is revealed after the student has received the master's degree certificate, the examination committee can revise the result or the respective grade retroactively and declare the examination as completely or partially failed. <sup>2</sup>If the completion of the master's examination is affected by this, the examination committee can revoke the respective ECTS credits and, if necessary, declare the master's examination "failed with no option to resit".

(2) <sup>1</sup>If the requirements to be admitted to an examination were not met, without the candidate's intent to disguise this fact and if this fact is revealed after the student has received the master's degree certificate, this defect is remedied by having passed the examination. <sup>2</sup>If the student attained admission to an examination illegitimately on purpose, the examination and consequently the degree completion may be considered "failed" ("nicht bestanden").

(3) The person in question must be granted the chance to comment on the issue prior to the decision.

(4) <sup>1</sup>Inaccurate master's degree certificates are to be recalled. <sup>2</sup>Where applicable, new master's degree certificates are to be issued. <sup>3</sup>Along with the inaccurate master's degree certificates, the respective diploma is to be recalled if changes to the final grade have to be made or failure of degree completion was declared. <sup>4</sup>After a period of five years starting from the issuance date of the original master's degree certificate, a decision in accordance with subsection 1 or subsection 2 sentence 2 is no longer possible.

(5) The revocation of the degree complies with the legal rules and regulations.

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## IV. Final Provisions

### Section 36 – Entry into Force

<sup>1</sup>These Examination Regulations become effective on 1 August 2024.

#### **Article 2 of the first amendment of 16 July 2024 stipulates:**

This amendment applies to all students who study the master's program Mannheim Master in Data Science at the University of Mannheim in accordance with the examination regulations for the master's program "Mannheim Master in Data Science" (M.Sc.) of 20. February 2024 (Bulletin of the President's Office (Bekanntmachungen des Rektorats) No 03/2024 pp. 64 et seqq.) in its respective valid version. The amendment becomes effective the day after its announcement in the Bulletin of the President's Office (Amtliche Bekanntmachungen des Rektorats) of the University of Mannheim.

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# Annex: Subject Area Components

## 1. Foundations of Data Science (27 ECTS credits)

<sup>1</sup>In the subject area “Foundations of Data Science” students learn the required basic skills relating to programming, data bases, statistics, data protection and open science, if they have not already acquired these skills in the bachelor’s program.

	Module Abbr.	Name	Examination	ECTS Credits
P	DS 100	Statistics for Data Scientists	Written exam (90 minutes)	9
P	DS 450	Programming for Data Scientists	Programming Exam (120 minutes)	6
P	DS 460	Databases for Data Scientists	Written exam (60 minutes)	6
P		Legal and Ethical Aspects of Privacy	Written exam (90 minutes)	3
P	DS 500	Open Science & Reproducible Research	-	3

## 2. Data Science Methods: Fundamentals (27 ECTS credits)

In the area “Data Science Methods: Fundamentals” students acquire the theoretical foundations of the methods of data science, including sampling, survey methodology, foundations of machine learning and causal inference.

	Module Abbr.	Name	Examination	ECTS Credits
P	DS 200	Sampling and Data	Written exam (90 minutes)	9
P	DS 201	Machine Learning and Causal Inference	Written exam (90 minutes)	9
P	DS 202	Section Seminar and Lab on Machine Learning and Causal Inference	Written exam (90 minutes)	9

## 3. Elective area “Data Science Methods: Specializations” (18 bis 23 ECTS credits)

<sup>1</sup>In the subject area “Data Science Methods: Specializations”, students acquire theoretical and practical competences in data collection, integration and administration. They obtain theoretical knowledge of processes used for recognizing patterns in data and for deriving models from multimodal data and learn to practically implement these processes.

To this end examinations worth from 18 to 23 ECTS credits from the areas “Data Management” or “Data Analytics Methods” of the Mannheim Master in Data Science program need to be obtained. The concrete classes that are available for the program year are listed in the module catalog of the “Mannheim Master in Social Data Science” program.

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#### 4. Elective area “Data Science Applications” (18 bis 23 ECTS credits)

<sup>1</sup>In the subject area “Data Science Applications”, students develop theoretical and practical competences for using data and models from data science for answering complex questions from various fields. To this end examinations worth from 12 ECTS credits from the electives of the master’s programs Sociology, Political Science and Psychology of the School of Social Sciences need to be obtained. The concrete classes that are available for the program year are listed in the module catalog.

#### 5. Master’s Thesis (30 ECTS credits)

	Module Name	Examination	ECTS Credits
P	Master’s Thesis	Master’s Thesis	30

#### List of Abbreviations

- P mandatory examination (Pflichtprüfung)
- W elective examination (Wahlprüfung)

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