

University of Tübingen exam regulations for the study program in Data Science in Business and Economics culminating in an examination for a Master of Science (M.Sc.) degree – Special Provisions –

In accordance with §§ 19 (1) item 2 nos. 7, 9, 32, para. (3) LHG of 04.01.2014 (GBl. p. 99), most recently amended by article 1 of the law dated 13 March 2018 (GBl. p. 85), the University of Tübingen Senate on 07.02.2019 passed the Special Provisions of these exam regulations for the study program in Data Science in Business and Economics at the University of Tübingen culminating in an examination for a Master of Science (M.Sc.).

Approved by the President and Vice-Chancellor on 15.02.2019.

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§ 1 Validity of General Provisions

The University of Tübingen exam regulations for School of Business and Economics degree programs culminating in the academic degree of Master of Science (M.Sc.) – General Provisions – as amended are part of these exam regulations, insofar as no other special provisions have been made.

I Goals, contents and structure of the program

§ 2 Contents and goals, regular duration of study, scope, start date of program

(1) ¹The degree program in Data Science in Business and Economics culminating in an examination for a Master of Science (M.Sc.), (hereinafter: Master's program) is a research-oriented program following on from a six-semester Bachelor's degree at the University of Tübingen's School of Business and Economics. ²The Master's program allows students to obtain long-term academic qualifications aimed at obtaining and increasing knowledge in a systematic and critical way, and justifying a general academically-based occupational qualification for students in economics fields; building upon a first degree in the field. ³The Master's program encompasses the teaching of in-depth theoretical and methodical research-oriented knowledge in the field of Data Science in Business and Economics. ⁴The goals to be met are set out in the

module handbook.

(2) ¹The regular duration of study in the Master's program is set out in § 1 (5) of the General Provisions of these exam regulations. ²A total of 120 credit points must be obtained to successfully complete this Master's degree program. ³The start of the program (winter or summer semester) is set out in the regulations governing admission and enrollment at the University of Tübingen, as amended.

(3) ¹A prerequisite for enrollment in this Master's program is a Bachelor's degree in the subject of Business/ Economics or an equivalent degree graded "good" (usually with a grade of 2.5 or better). ²The examination board will decide on the equivalency of a degree and on whether the prerequisite in sentence 1 above has been met. ³The board may transfer this decision revocably to the head of the board. ⁴If there is a set number for admission, the articles may specify that the selection committee formed for the relevant selection process decides instead.

(4) ¹To take part in the Master's program, applicants must also document knowledge of English at least at the level of B2 of the Common European Framework of Reference for Languages (CEFR); ²For the requirement in sentence 1 above, paragraph (3) sentences 2-4 apply accordingly.

(5) ¹For studies in this Master's program, applicants must additionally document, for example with their first higher education degree, advanced knowledge of

1. Business management
2. Political Economy
3. Quantitative methods of economics, and
4. Experience in programming statistical software.

²For the requirement in sentence 1 above, paragraph (3) sentences 2-4 apply accordingly.

§ 3 Structure

(1) ¹The Master's program is structured over two years. ²It concludes with the Master's examination.

(2) ¹Students complete a program of 120 credit points. The program consists of the following modules:

recom- mended semester	Module title	ECTS credits		
1-4	Core Studies Focus on Econometrics	9		
	Core Studies Focus on Data Science Techniques	9		
	Core Studies Focus on Business and Economics	9		
	Specialization Studies Focus on Econometrics	0/6-24	33-42	42
	Specialization Studies Focus on Data Science Techniques	12-24		
	Specialization Studies Focus on Business and Economics	6-24		
	Elective Studies	0-18		
	Modul Advanced Topics in Data Science in Business and Economics	9		
	Module Data Science Project	12		
	Master's thesis in Data Science in Business and Economics	30		

(3) Studies are structured as follows: the Core Studies modules - Focus on Econometrics, Focus on Data Science Techniques, Focus on Business and Economics; the Specialization Studies modules, the Elective Studies modules, Advanced Topics in Data Science in Business and Economics, Data Science Project, and the Master's thesis in Data Science in Business and Economics.

(4) The Core Studies modules teach knowledge necessary for advanced academic training in the area of Data Science in Business and Economics. A total of 27 ECTS credits must be obtained from the Core Studies modules Focus on Econometrics, Focus on Data Science Techniques, Focus on Business and Economics. These modules are to be completed in the first year of study. These modules are set out in the module handbook.

(5) The Specialization Studies modules focus on issues in Data Science in Business and Economics. Admission to individual classes within the Specialization Studies and Elective Studies modules may be made dependent on regular and successful participation in other classes. A total of 33-42 ECTS credits must be obtained from Specialization Studies modules. The Specialization Studies focus on Econometrics may be selected with a workload of 6-24 ECTS credits. The Specialization Studies focus on Data Science Techniques may be selected with a

workload of 12-24 ECTS credits. The Specialization Studies focus on Business and Economics may be selected with a workload of 6-24 ECTS credits.

(6) ¹The Elective Studies modules aim to give students greater in-depth knowledge in core areas, which they can choose themselves. ²A total of 0-18 ECTS credits may be obtained from Elective Studies modules. A total of 42 ECTS credits must be obtained from Specialization and Elective Studies modules.

(7) ¹Failed attempts at a class will be counted even if that class is taken again as part of another module or in another area (Core Studies/ Specialization Studies/ Elective Studies/ Advanced Topics in Data Science in Business and Economics/ Data Science Project). ²Classes which a student has already successfully completed may not be taken again as part of another module or part-module, or in another area (Core Studies/ Specialization Studies /Elective Studies / Advanced Topics in Data Science in Business and Economics/ Data Science Project).

(8) ¹The Master's thesis is to be written and completed in the fourth semester. ²It should be supervised by a professor of the School of Business and Economics at the University of Tübingen and focus on a topic from the field of economics. ³The examination board may permit the thesis to be supervised by a professor of informatics and the thesis topic to be drawn from the field of informatics.

(9) ¹The M.Sc. program in Data Science in Business and Economics may also be completed with a clearly indicated PhD orientation. ²For the entry "mit PhD-Orientierung" (PhD orientation) to be made on the degree certificate, the following additional requirements must be met:

a) at least 27 of the ECTS credits obtained outside of Core Studies must have been obtained in modules specified in the module handbook as "PhD oriented."

and

b) the writing of a Master's thesis with the potential for publication in a relevant academic journal and for presentation within the framework of an event open to the department. Such potential must be expressly confirmed by both examiners of the thesis.

(10) ¹It is prohibited for students to take, as part of their Master's studies, any module or class which is the same as, or substantially similar to, one they took in their Bachelor's studies; such modules and/or classes may therefore not be selected as part of Master's program studies under these exam regulations, nor be completed under § 3(2). ²In borderline cases and particularly cases in which the content of the modules/ classes overlaps to a large degree, the examination board is to decide on whether the module/ class may be selected/ completed as part of the program. ³The examination board may in individual cases define another appropriate module or class to replace a module or class which is excluded, if otherwise on the basis of these exam regulations and the module handbook there would not be a module yielding the necessary credits for an individual student to complete the program.

II. Teaching of material

§ 4 Types of classes within the modules

¹Classes of the following types in particular may be scheduled:

1. Lectures,
2. Seminars,
3. Colloquiums, exercises, internships / laboratory practical work, tutorials, excursions.

²For classes which are wholly or largely made up of elements of the types listed in item 1 nos.

2-3 above, participant numbers may be limited under § 30(5)(1) LHG if training could not otherwise be guaranteed in accordance with the regulations or if a limitation is necessary for other reasons of research, teaching or patient care. ³Subject-related techniques in particular are to be taught in these classes along with interdisciplinary, professionally-oriented qualifications. ⁴In addition, students are to have the opportunity to work in small groups to develop the ability to present the knowledge obtained both verbally and in written form. ⁵In addition, within the framework of § 30 (5)(1) LHG the right to participate in classes may be restricted or admission to part of the course may be made dependent on the completion of certain coursework, if training could not otherwise be guaranteed in accordance with the regulations or a limitation is necessary for other reasons of research, teaching or patient care.

§ 5 Languages of instruction and examination

¹German and English are the languages of instruction and examination in this degree program. ²Classes and exams may take place in German or English; students are required to be sufficiently competent in German and English. ³Exams are usually conducted in the language in which the respective classes were held. ⁴In classes aimed at teaching a language other than German, the teaching and exams may be conducted in the respective other language.

§ 6 Types of assessment

The assessed coursework required in each of the modules is set out in the module handbook. ²Elective Studies modules may include classes run by another department; in this case, students may be directed to the module handbook of the respective department.

III. Organization of program

§ 7 Volume of material

The required volume of study is set by the General Provisions of the exam regulations, the structure of the program and the modules - particularly § 3 of the Special Provisions of the exam regulations.

IV. Master's examination and overall grade

§ 8 Nature and execution of Master's examination

In addition to the prerequisites set out in the General Provisions of these exam regulations, prerequisites for admission to the Master's thesis process and other possible oral examinations to be completed in the final phase of the program under § 15 of the General Provisions are:

- the successful completion of 3 further modules from the Core and Specialization Studies modules, the Advanced Topics in Data Science in Business and Economics module and/or the Data Science Project module, worth a total of at least 30 ECTS credits (cf. overview in § 3).

§ 9 Master's thesis

Provisions governing the Master's thesis are set out in § 17 of the General Provisions and § 3 (8) of these exam regulations.

§ 10 Calculation of the overall grade

The overall grade of the Master's examination is calculated from the average (as weighted by credit points) of all grades given in the graded modules in accordance with § 3 of the Special Provisions of these exam regulations, including the Master's thesis module, and taking account of the further provisions in § 21 of the General Provisions of these exam regulations.

V. Closing remarks

§ 11 Effective date

¹These exam regulations come into effect on the date of their publication in the University of Tübingen's official bulletin, the Amtliche Bekanntmachungen. ²Their first semester of validity is the winter semester 2019/20.

Tübingen, 15.02.2019

Professor Dr. Bernd Engler
President and Vice-Chancellor