

# **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 paragraph (1) sentence 2 nos. 7 and 9, 32 paragraph (3) of the law governing institutions of higher education, LHG of 1 January 2005 (GBl. p. 1), in the version published 1 April 2014 (GBl. p. 99) most recently amended by article 8 of the law dated 7 February 2023 (GBl. pp. 26, 43), the University of Tübingen Senate on 04.05.2023 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.) degree.

Approved by the President on 19.09.2023.

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## **A. Validity of General Provisions and admission requirements**

### **§ 1 Validity of General Provisions**

The University of Tübingen exam regulations for Master's degree programs culminating in the academic degree of Master of Science (M.Sc.) / Master of Arts (M.A.) – Master's degree framework exam regulations (MRPO) – as amended represent the General Provisions of these exam regulations and are an integral part of them, insofar as no more specific provisions have been made.

### **§ 2 Requirements for admission to program**

(1) <sup>1</sup>A prerequisite for studies in this Master's program is a grade of 2.5 or better in a Bachelor's degree in the subject of Business and Economics, in a related program covering basically the same material, or an equivalent degree. <sup>2</sup>Furthermore, the applicant must demonstrate successfully completed coursework in the following subjects in particular in his/her Bachelor's studies:

- advanced knowledge of business administration

- advanced knowledge of macroeconomics
- quantitative methods of quantitative methods of economics
- Experience in programming statistical software.

<sup>3</sup>The respective examination board will decide on the equivalency of a degree and on whether the prerequisite in sentence 2 above has been met. <sup>4</sup>The board of examiners may transfer the making of this decision revocably to the head of the board. <sup>5</sup>If there is a restricted number of admissions, statutes may specify that the decision is instead made by a selection committee formed for the relevant selection process.

(2) To 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).

## **B. Goals, content and structure of the program**

### **§ 3 Goals and contents of program, regular duration of study, scope of program**

(1) <sup>1</sup>Studies in Master of Science program (M. Sc.) in Data Science in Business and Economics (hereinafter: the program) enable students to acquire the specific qualifications, competencies, knowledge, abilities and skills required for a Master's degree in the subject of Data Science in Business and Economics under § 7 (1) of the Master's degree framework exam regulations. <sup>2</sup>The objective of the program is to deepen or expand the knowledge acquired in the Bachelor's degree, thus providing the basis for the development and/or application of the student's own ideas (application or research-oriented); graduates possess a broad, detailed and critical understanding at the cutting edge of knowledge in one or more specialized fields

- and are able to apply their knowledge and understanding as well as their problem-solving skills in new and unfamiliar situations related to their field of study in a wider or multidisciplinary context (instrumental competencies),
- to integrate knowledge and deal with complexity,
- and to make academically sound decisions on the basis of incomplete or limited information, taking into account social, scientific and ethical findings resulting from the application of their knowledge and from their decisions,
- to acquire new knowledge and skills independently and to carry out largely self-directed and/or autonomous independent research- or application-oriented projects (systemic competencies),
- to communicate their conclusions and the information and motives underlying them to expert representatives and laypersons in a clear and unambiguous manner, to exchange information, ideas, problems and solutions with both experts and laypersons on an academic level and to assume prominent responsibility in a team (communicative competencies).

<sup>3</sup>Further details of the course objectives are set out in the module handbook.

(2) <sup>1</sup>The regular duration of study for this degree program is four semesters. <sup>2</sup>The program comprises 120 credit points (CP).

(3) <sup>1</sup>Over and above the number of credit points prescribed for the degree program according to these regulations, students may obtain no more than a 30 additional credit points from the degree program modules specified in § 5, para. (1); in all other respects, § 2, para. (5) of the Master's degree framework exam regulations applies.

### **§ 4 Academic degree**

The academic degree "Master of Science" (abbr. "M.Sc.") is conferred on the basis of a successful completion of the program.

## § 5 Program Structure

(1) <sup>1</sup>Students complete a program to earn credit points as set out in § 3 para. (2); the program consists of the following modules:

Semester no.	Module no.	P/W P	Module title	Work for assessment	CP		
<b>Core Studies</b>							
1		P	Core Studies Focus on Econometrics	written or oral	9		
1		P	Core Studies Focus on Data Science Techniques	written or oral	9		
1		P	Core Studies Focus on Business and Economics	written or oral	9		
<b>Specialization and Elective Studies</b>							
2-3		WP	Specialization Studies Focus on Econometrics	written or oral	0/6-24	24-42	42
2-3		P	Specialization Studies Focus on Data Science Techniques	written or oral	12-24		
2-3		P	Specialization Studies Focus on Business and Economics	written or oral	6-24		
2-3		WP	Elective Studies	written or oral	0/6-18		
<b>Compulsory modules</b>							
2-3	CM5_10	P	Advanced Topics in Data Science in Business and Economics	written or oral	9		
3	DS500	P	Data Science Project	written or oral	12		
<b>Final Module</b>							
4	MA5_10	P	Master's thesis in Data Science in Business and Economics (final module)	Master's thesis	30		

**Abbreviations:** FS = recommended semester (subject to availability and change, see module handbook); module no. = current module no. or abbreviation (subject to change, see module handbook), P = compulsory, WP = required elective, CP = credit points, K = written exam, H = assignment; mP = oral exam; final module: Master's thesis and, if required by the exam regulations or the module handbook, an oral examination in the final module.

(2) As part of the program, students should complete practical work (internship) which serves the program's qualification goals.

(3) <sup>1</sup>A total of at least 42 CP are to be obtained in the Specialization and Elective Studies areas. <sup>2</sup>Specialization Studies Focus on Econometrics and the area of Elective Studies are required electives. <sup>3</sup>A requirement for the completion of the areas mentioned in sentence 2 and corresponding note on the certificate according to § 14 is the successful achievement of at least 6 CP each from modules in these areas.

(4) <sup>1</sup>The program may also be completed in a variation including a clearly indicated PhD orientation. <sup>2</sup>For the successful completion of the variation with PhD orientation, the successful completion of a total of at least 27 CP from modules is a prerequisite; these must be marked as "PhD-oriented" in the module handbook and may not be assigned to the Core Studies set out in the module table

in § 5 (1).

## **§ 6 Module coursework**

<sup>1</sup>Details of the module coursework required in each of the modules is set out in the module table in these regulations (§ 5) and in the module handbook. <sup>2</sup>Assessment must be clearly specified as to its type and scope, if this is not set out in the module table.

## **§ 7 Languages of instruction and examination**

<sup>1</sup>German and English are the languages of instruction and examination. <sup>2</sup>Furthermore, teachers and examiners may promote and/or conduct classes and/or module coursework in another language for the purpose of teaching that language. <sup>3</sup>Exams are usually conducted in the language in which the relevant classes were held; other assessment is usually conducted in the language in which the relevant classes were held. <sup>4</sup>It is therefore assumed that students have sufficient knowledge of the relevant languages.

## **C. Assessment in the program**

### **I. General Provisions for assessed coursework**

#### **§ 8 Multiple-choice procedures**

(1) <sup>1</sup>Written assessment in the form of examinations may, in the following cases, be wholly or partly conducted in such a way that the candidate must indicate which of the answers - presented with the examination questions - he or she considers to be correct (multiple-choice procedure). <sup>2</sup>The conditions for the conducting of examinations including multiple-choice questions are:

- the examination tasks are set by the person or persons acting as the examiner, and
- the examinations, after they have been completed, are corrected in their entirety by the person or persons acting as examiners, and
- the examinations are graded by the person or persons acting as examiners according to their respective individual grading scheme according to § 19 MRPO.

<sup>3</sup>Prior to the correction of the examinations, no determination may be made regarding certain assessments, such as the setting of certain grades if a certain proportion of the examination questions are answered correctly or if a certain number of points is achieved.

(2) Regarding assessment conducted via online attendance in accordance with § 12 MRPO, para. (1) applies accordingly.

### **II. Special provisions for the final module**

#### **§ 9 Final module**

(1) <sup>1</sup>The student writes the Master's thesis in the final module; this is regulated in § 28 of the MRPO. <sup>2</sup>In the final module, 30 credit points must be obtained.

(2) The time limit for writing a Master's thesis - from the issuing of the topic to submission of the thesis - is six months.

#### **§ 10 Subject-specific provisions for admission to final module**

The admission requirements for the Master's thesis are, in addition to the prerequisites specified in

the MRPO, the successful completion of a total of at least 30 CP from modules and areas specified in the module table in § 5 (1); CP completed in Elective Studies modules are not taken into account here.

#### **D. Deadlines for examinations in the program**

##### **§ 11 Deadline for completion of studies**

<sup>1</sup>All module coursework required under the exam regulations must be completed by the end of the student's seventh semester in the subject. <sup>2</sup>If this time limit is exceeded, the student's right to be examined is lost, unless the failure to meet the deadline is beyond the control of the student.

#### **E. Master's overall grade, certificate and other documentation**

##### **§ 12 Calculation of overall grade**

The overall grade for the program is calculated from the average of all graded modules, as weighted by credit points.

##### **§ 13 Certificate and other documentation**

Along with the details provided for under § 36 par. 1 MRPO, the following details are entered:

- PhD orientation according to §5 (4).

#### **F. Closing remarks**

##### **§ 14 Effective date and transitional arrangements**

<sup>1</sup>These exam regulations come into effect on the date of their publication in the University of Tübingen's official bulletin, the Amtliche Bekanntmachungen. <sup>2</sup>Their first semester of validity is the winter semester 2023/24. <sup>3</sup>Students who commenced their studies at the University of Tübingen prior to the semester specified in sentence 2 are - subject to the following provisions - entitled to complete their module coursework in this degree program at the University of Tübingen by 31 March 2026 under the previously valid rules; however, regarding the examination board, § 6 MRPO applies. <sup>4</sup>Students who commenced their studies at the University of Tübingen prior to the semester specified in sentence 2, are entitled to switch and complete their module coursework in the degree program under these current exam regulations upon written application, which must be submitted to the central examination office by 31 March 2024. <sup>5</sup>If no application under sentence 4 above is lodged, then - after the deadline specified in sentence 3 - the module coursework in the degree program must be completed under these current regulations. <sup>6</sup>Module coursework completed previously will only be accredited according to the new exam regulations and the corresponding module handbook, subject to the following provisions. <sup>7</sup>These exam regulations do not grant any new or additional right to be assessed in an area already assessed; any fails in assessed work under the previous exam regulations will be included. <sup>8</sup>Furthermore the responsible board of examiners may agree suitable transitional arrangements in individual cases, particularly if previous classes are no longer offered as before or if certain classes have been completed, possibly offering partial accreditation and/or requiring certain conditions to be fulfilled, particularly if a "learning agreement" is to be considered.

Tübingen, 19.09.2023

Professor Dr. Karla Pollmann, President