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Regulations Governing Entry Requirements and Admission to the Data Science Master's Degree Programme at Technische Universität Braunschweig

The Faculty Council of TU Braunschweig's Carl-Friedrich-Gauß Faculty has adopted the following regulations according to Section 18, Paragraph 8, of the Lower Saxony Higher Education Act (*Niedersächsisches Hochschulgesetz*, NHG) and Section 7 of the Lower Saxony University Admissions Act (*Niedersächsisches Hochschulzulassungsgesetz*, NHZG):

1
Scope

(1) These regulations govern entry and admission to the consecutive Master's degree programme in Data Science.

(2) The entry requirements are set out in Section 2.

(3) If there are more applicants who meet the entry requirements than places available in a degree programme that is subject to specific admissions criteria, places will be awarded based on the University's own selection process (Section 4). If there are fewer applicants who meet the entry requirements than places available, all eligible applicants will be admitted.

2
Entry requirements

(1) To enter the consecutive Master's degree programme in Data Science, applicants must:

a) 1. hold a Bachelor's degree or an equivalent qualification in a previous degree programme in data science, computer science, mathematics or a closely related field, awarded either by a German university or by a university in a Bologna signatory state

or

2. hold an equivalent qualification from a previous degree programme in data science, computer science, mathematics or a closely related field, awarded by a foreign university; degree equivalency will be assessed according to the recommendations of the Central Office for Foreign Education (http://anabin.kmk.org, in German only), which is part of the Secretariat of the Standing Conference of Ministers of Education and Cultural Affairs

and

b) provide proof of subject-specific qualifications as set out in Paragraph 2 and language skills as set out in Paragraph 3.

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The Admissions Committee will decide whether a previous degree programme is closely related. Admission may be granted with an ancillary clause stating that outstanding modules, exam results or credits must be submitted within two semesters.

The outstanding modules, exam results or credits may be waived at the applicant's request if the applicant undergoes an individual examination proving they have sufficient expert knowledge of the subject. The examination (oral or written) will be given by a lecturer who teaches a relevant discipline.

(2) Applicants must prove their knowledge and expertise in the following areas:

either

a) basic knowledge acquired during their first degree programme by successfully completing relevant modules (such as lectures, exercises and internships), earning at least 25 credits in basic mathematics and at least 60 credits in basic computer science, and acquiring knowledge in the following key areas of Computer Science:
   - programming
   - software engineering
   - databases
   - at least two topics from the areas of IT security, distributed systems and computer networks

or

b) basic knowledge acquired during their first degree programme by successfully completing relevant modules (such as lectures, exercises and internships), earning at least 75 credits in basic mathematics, of which up to 15 credits may relate to computer science, as well as knowledge in the following key areas:
   - linear algebra
   - analysis, including multivariate
   - programming.

Proof must be submitted in the form of a written overview of no more than one page (A4 size paper, Arial font, font size 10), with documents/copies attached.

(3) Applicants whose native language is not English must have a sufficient command of the language. Sufficient English proficiency must be demonstrated by achieving at least a minimum result in one of the following internationally recognised tests or an equivalent test:

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Test of English	**Minimum result**
Test of English as a Foreign Language (TOEFL), Internet-based Test/IBT www.ets.org	95 credits
Cambridge English: Advanced (CAE) www.cambridgeenglish.org	Grade B or higher
Cambridge English: Proficiency (CPE) www.cambridgeenglish.org	Grade C or higher
International English Language Testing System (IELTS) www.ielts.org	Band 6.5 or higher
English Language Proficiency Report from TU Braunschweig's Language Centre.	At least two skills at B2 level and two skills at C1 level in the Language Centre's English Language Proficiency Report

The successful completion of one of these tests must not date back more than three years from the date of application for admission to the Master's degree programme. Applicants who have successfully completed a two-year (or longer) study programme taught entirely in English within the last three years may upon request be exempt from providing proof of a successful English test.

(4) As an exception to Paragraph 1, Letter a, the University may provisionally admit applicants whose Bachelor's degree or equivalent qualification is pending at the time of application if they have accumulated at least 150 credits (83.3 %) in a degree programme with a total of 180 credits, or at least 180 credits (85.7 %) in a degree programme with a total of 210 credits, and if they are expected to complete their Bachelor's degree or equivalent qualification no later than 31 March or 30 September of their first semester in the Master's programme, as applicable (see Section 4, Paragraph 6). A grade point average (GPA) is calculated based on the marks relevant to admission, to be taken into account during the selection process explained in Section 4, regardless of the student's final GPA in their Bachelor's degree.

(5) Applicants do not have to prove any German language skills.

3
Start of the programme and application deadline

(1) The Master's degree programme in Data Science starts every winter and summer semester. To apply for admission, an electronic application form must be completed and submitted via the University's web portal. Application forms must then be printed, signed and submitted along with the supporting documents listed in Paragraph 2.

For the winter semester, applications must reach the University

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- no later than 15 March for applicants who fall under the quota for foreign students according to the NHZVO, Section 33, Paragraph 1
- no later than 15 July for all other applicants.

For the summer semester, applications must reach the University

- No later than 15 September for applicants who fall under the quota for foreign students according to to NHZVO, Section 33, Paragraph 1,
- no later than 15 January for all other applicants.

Applications for admission outside the regular application process and above the defined admission numbers must reach the University no later than 10 February for the summer semester and no later than 10 August for the winter semester.

Both types of applications (Clauses 2 and 4) will be valid for admission to the programme only for the starting date specified. The University is under no official obligation to verify the information provided by applicants.

(2) All copies of diplomas and certificates must be certified. Where originals are not issued in English or German, certified German or English translations must be included. Applications for admission under Paragraph 1, Sentence 2, must include the supporting documents listed below.

a) Bachelor's degree certificate or, if this is pending, a certificate listing the student's achievements (with credits), total number of credits earned and GPA to date, along with a list of all completed modules (e. g. Diploma Supplement, academic transcript etc.)

b) proof of subject-specific qualifications as set out in Section 2, Paragraph 2, e.g. in the form of module descriptions, which must be submitted in the form of a written overview of no more than one page (A4 sized paper, Arial font, font size 10) with attached documents/copies. The applicant is responsible for proving that they have completed the required content in the respective fields as set out in Section 2, Paragraph 2

c) curriculum vitae

d) proof of English language proficiency as set out in Section 2, Paragraph 3.

The requirements set out in Paragraph 2, Sentence 1 et seq., also apply to applications for a place above admission capacity, without however affecting the additional requirements applicable to that process. The prerequisite for an application for admission above capacity is that the applicant must have already applied in a timely and formally correct manner for a place in the Master's programme within the defined admission capacity and must have fulfilled the necessary admission requirements.
In addition, applicants must submit a sworn statement confirming that they have not received an offer or a conditional offer of a place in the Master's programme in Data Science or parts of that programme, or a related degree programme at a university in Germany or in another European Union Member State. This statement must include the applicant's nationality.

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4
Admissions process

(1) The Admissions Committee makes all selection decisions (Section 5).

(2) Selection decisions are made as set out below:
Points are awarded for the final mark as explained in Section 2, Paragraph 1, Letter a, or for the GPA as explained in Section 2, Paragraph 4, and for the score achieved during the selection interview as set out in Section 7. These points are then weighted and added to calculate a total score. The points awarded for the final mark or GPA make up 51% of the total score, and the points earned during the selection interview, the remaining 49%. Applicants are ranked according to their total scores. If there are several applicants with the same score, they will be ranked at random.

(3) The Admissions Committee makes a pre-selection as set out in Paragraph 4 and then undertakes the final selection from the pre-selected applicants according to the criteria presented in Paragraphs 2 and 5.

(4) In order to limit the number of participants in the selection interviews, applications are pre-selected in a quantity up to twice the number of places available. To this end, applicants are ranked according to the final mark for their Bachelor's or equivalent degree. If there are several applicants with the same score, all applicants with top rankings will be pre-selected.

(5) Points are awarded as follows:

Bachelor's Degree / GPA	Points	Bachelor's degree / GPA	Points	Bachelor's degree / GPA	Points
< 1.0	31	2.1	20	3.1	10
1.1	30	2.2	19	3.2	9
1.2	29	2.3	18	3.3	8
1.3	28	2.4	17	3.4	7
1.4	27	2.5	16	3.5	6
1.5	26	2.6	15	3.6	5
1.6	25	2.7	14	3.7	4
1.7	24	2.8	13	3.8	3
1.8	23	2.9	12	3.9	2
1.9	22	3.0	11	4.0	1
2.0	21			5.0	0

(6) Otherwise, the general provisions for enrolment as set out in the University's enrolment regulations are not affected. Applicants who fail to complete outstanding modules, exams or

credits as set out in Section 2, Paragraph 1, Sentence 3, within their first two semesters and submit corresponding proof before the end of their second semester (30 September or 31 January, respectively) will be unenroled after this deadline, unless they can prove that they are not responsible for this. Applicants with an incomplete Bachelor's degree or equivalent qualification at the time of their application will be unenroled after the deadline if they fail to submit their Bachelor's or equivalent degree certificate before the end of their first semester (31 March or 30 September, respectively), unless they can prove that they are not responsible for this.

(7) For restricted-admissions degree programmes, 40% of places are allocated to applicants who fall under the quota for foreign students according to the NHZVO, Section 33, Paragraph 1, and 60% of places to all other applicants.

5
Admissions Committee for the Master's degree programme in Data Science

(1) To make its selection decisions, the Carl-Friedrich-Gauß Faculty forms an Admissions Committee.

(2) Members of the Admissions Committee are as follows:

- 1 member from the group of university lecturers in the Department of Mathematics
- 1 member from the group of university lecturers in the Department of Computer Science
- 1 member from the group of research associates
- 1 student member with an advisory vote.

Committee members are appointed by the Faculty Council at Carl-Friedrich-Gauß Faculty. The student member is appointed for a period of one year, and all other members for a period of two years. Reappointments are permitted. The Admissions Committee is quorate if at least two voting members are present.

(3) The Admissions Committee has the following responsibilities:

a) reviewing incoming applications in terms of formal correctness

b) checking that entry requirements as set out in Section 2 are met

c) carrying out selection interviews as set out in Section 7

d) ranking all applications that meet the entry requirements as set out in Section 4

c) deciding on the success of individual applications and notifying the Admissions Office or International Office who in turn send out letters of admission or rejection to the applicants.

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6
Notifications, wait list procedure and process completion

(1) Applicants who are offered a place in the programme are notified by the University in writing. This notification specifies a deadline by which the applicant must accept or decline the offer in writing, either on paper or electronically. If an applicant's reply is not received within the specified deadline or in the proper form, the offer of a place lapses. Applicants must be informed of this legal consequence in the written notification.

(2) Applicants who cannot be offered a place in the programme are notified by the University in writing that their application has been rejected. The letter of rejection specifies the applicant's position in the ranking and the position of the last applicant admitted. Letters of rejection must include details on how to appeal the decision. They also include a request for the applicant to state, in writing (on paper or electronically) by a specified deadline, whether they wish to be wait-listed. Applicants who do not submit their reply by the deadline or in the proper form are excluded from the waitlist. Applicants must be notified of this legal consequence.

(3) The waitlist procedure is based on the rankings as set out in Section 4, Paragraph 2.

(4) The admissions process will end no later than the beginning of the semester. Informal applications may be submitted for any places on the programme available after that date. Places are allocated by random draw from the applications received, provided they meet the entry requirements as set out in Section 2. The application period for this starts six weeks before the beginning of the semester (1 October for winter semesters and 1 April for summer semesters) and ends with the completion of the admissions process.

7
Selection interview

(1) The selection interview is meant to show whether an applicant is qualified for their intended Master's degree programme. The selection interview will be conducted according to the following principles:

a) Selection interviews for the winter semester will take place between 1 May and 15 June for non-EU applicants requiring a visa and between 1 August and 31 August for EU citizens and other applicants not requiring a visa. Selection interviews for the summer semester will take place between 1 November and 15 December for non-EU applicants requiring a visa and between 1 February and 31 February for EU citizens and other applicants not requiring a visa. Selection interviews will take place by videoconference. The University will notify applicants of the exact date of their interview within an appropriate period of time (at least one week in advance).

b) The Admissions Committee will hold a selection interview of approximately 15 minutes with each applicant. A selection interview may be conducted with up to four applicants.

c) Minutes of the main questions and answers of each selection interview will be kept and signed by the members of the Admissions Committee.

(2) The selection interview will cover the applicant's motivation as well as the following suitability criteria:

a) ability to work scientifically, systematically and in a method-oriented way

b) previous experience and sound knowledge of scientific foundations in Computer Science, Mathematics or Data Science, acquired during a degree programme in Computer Science, Mathematics, Data Science or a closely related field, and evidenced by documents such as proof of a subject-relevant academic focus.

(3) The members of the Admissions Committee will judge the applicant according to their degree of suitability for their intended Master's degree programme.

According to the determined degree of suitability, scores will be awarded as follows:

The applicant is	Score
Very well suited	1
Well suited	2
Suitable	3
Acceptable	4
Poorly suited	5

For a finer distinction, in-between scores may be awarded by increasing or decreasing a grade by 0.3. Scores of 0.7, 4.3, 4.7 and 5.3 are not allowed.

(4) Applicants who fail to attend their interview without good reason are excluded from the selection process. If there is good reason, the Admissions Committee will set a new date for the selection interview at the applicant's request. Proof of the good reason as well as the request for a new interview date must be submitted immediately, and no later than two days after the original interview date. An excluded applicant may participate in the next available selection process.

8
Admission to a higher programme semester

(1) Vacant places in higher programme semesters with restricted admission are allocated to applicants in the following order:

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a) applicants who have studied or are studying in the same or a similar degree programme:

aa) at another German university or a university in another EU Member State or another European Economic Area Agreement signatory state

bb) at a university outside Germany and who are either German nationals or hold a nationality that is treated as equivalent for admissions purposes

b) applicants for whom a rejection would constitute a particular hardship because of their personal circumstances

c) applicants giving other valid reasons.

Applicants for degree programmes with restricted admission must provide proof that their level of proficiency meets the standard required for that particular higher programme semester.

(2) For the three groups specified in Paragraph 1, Sentence 1, Letters a-c, admission decisions are made based on the GPA. If several applications have the same ranking, the decision is determined by social (especially family-related) and economic reasons that are essential to the applicant's choice of university location. Where several similar cases remain, places are offered by random draw. An applicant's GPA is calculated based on their work to date.

(3) Applicants who have not received their Bachelor's degree certificate by the end of the application period may be admitted if proof is given that they meet the entry requirements as set out in Section 2. Their Bachelor's degree certificate must then be presented on enrolment. If an applicant has not completed their Bachelor's degree by the time of enrolment, their admission will be revoked.

9
Entry into force

This regulation comes into force on 01.08.2024. They regulate for the first time the admission procedure for the summer semester 2025.
At the same time, the previous regulations - University Announcement dated 18.05.2021 (TU Announcement No. 1354) - will be repealed after the admission procedure for the winter semester 2024/25.