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This English language translation is provided for information purposes only. The original German version of the Studien- und Prüfungsordnung of 6.6.2023 is binding.

**Study and Examination Regulations
for the
Master's Programme Digital Logistics Management**

**(full-time study programme)
Master of Engineering (M.Eng.)**

On the basis of Secs. 19 Subs. 2, 22 Subs. 2, 72 2 no. 1 of the Brandenburg Higher Education Act (BbgHG) of 28 April 2014 (GVBl.I/14, [No. 18], p.1), last amended by the announcement of 23 September 2020 (GVBl.I/20, [No. 26]), in conjunction with Sec. 14 (3) of the General Regulations of Wildau University of Applied Sciences in the version published on 21 August 2019 (Official Notices 45/2019), last amended with effect from 22 August 2022 (Official Notices 29/2022), and the provisions of the General Regulations of Technical University of Applied Sciences Wildau in the version published on 4 July 2019 (Official Notices 42/2019), last amended on 31 August 2022 (Official Notices 31/2022), the Faculty Board of the Faculty of Engineering and Natural Sciences of Technical University of Applied Sciences Wildau enacts the following Study and Examination Regulations for the Joint Master's Programme in Digital Logistics Management¹ by resolution of 1 February 2023:

¹ These Study and Examination Regulations were approved by the Ministry of Science, Research and Culture on 2 June 2023 and by the President of TH Wildau in writing on 22 February 2023.

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§ 1 Qualification Objectives of the Degree Programme

- (1) The international master's programme Digital Logistics Management (DLM) combines technical, technological and business management content to teach the digital transformation of logistics and supply chain processes in technical terms, taking a holistic view (interdisciplinary view, i.e. legal and organisational interdependencies as well as questions of acceptance are essential components of the transformation processes) of personnel leadership culture, project management as well as sustainable development.
- (2) In the modules (1 - 10) taught at Caucasus University (CU), students are instructed in the technical-scientific and economic framework of modern logistics processes. The modules taught at TH Wildau (11 - 16) prepare students for initiating, managing and evaluating the processes for designing and implementing digitalised logistics systems (see study plan in Appendix Part 1). Here, logistics systems are understood as material flow systems (including the associated automation systems), transport systems as well as logistics management systems and logistics control systems.
- (3) Students will be able to analyse logistics systems and specify system requirements as well as develop and evaluate suitable technical (especially digital) solutions and select those that best meets these requirements. Graduates will be able to:
 - a. define technical and economic requirements for logistics systems from both physical and information and communication technology (ICT) incl. Internet of Things (IoT) / Industry 4.0,
 - b. compile modern project management methods such as agile project management (Scrum) including the creation of requirement and functional specifications for the various logistics systems within the scope of a project and apply their quality from a planning, operational and manufacturing perspective and conduct holistic risk assessment (economic, technical, social),
 - c. Understand the functionality of ICT solutions for the digital transformation of material flow and / or transport systems, specify requirements for these and select and evaluate suitable system solutions,
 - d. Identify challenges in collaborative projects for the realisation of conceptual system solutions, regardless of the type of logistics process, and apply methods and strategies for overcoming them in a targeted manner, as well as promote cooperation between the operating, planning and manufacturing companies.

Building on the foundations from the modules in the first two semesters at CU, students will apply and extend their expertise and problem-solving skills for logistics system design through scenario-based exercises, case studies and real-world projects. Special attention will be paid to group work, communication processes, leadership responsibility and project management in designing and implementing physical systems, specifying, selecting and implementing, as well as the organisational implications of information and communication systems for digitalisation. Thus, the specialisation equips students with a methodology and practical experience along the entire development process of logistics

systems as well as collaborative supply chains and especially strengthens the link between systems design and solution implementation.

§ 2 General Degree Programme Schedule

For the schedule within the study section taught at the CU in the first and second semesters, the General Regulations of the CU apply, in the third and fourth semester the General Regulations of TH Wildau apply. The General Regulations of the two partner universities can be found under the official notices on the respective homepages.

§ 3 Cooperating Partners of the Degree Programme

- (1) The master's programme DLM is offered jointly in cooperation with two equal partner universities:
 - Caucasus University (CU) in Tbilisi, Georgia
 - Technical University of Applied Sciences Wildau (TH Wildau)
- (2) The master's programme is implemented through specific cooperation agreements.
- (3) The partner universities have jointly designated the CU as the consortium-leading institution, which is responsible for administrative coordination. Here, common standards for admission and access to studies apply, as well as a common application and selection procedure.
- (4) In addition, two committees are established:
 - a) The Joint Academic Committee (JAC) ensures continuous and regular exchange on the implementation, quality assurance and further development of the DLM programme. The JAC consists of one academically and administratively representative person from each partner university (4 persons in total). It serves the regular communication between the project partners. The JAC carries out the following tasks:
 - Review of the objectives of the study programme
 - Ensuring a common understanding of quality
 - Systematic and regular further development and adaptation of the curriculum and the structure of the study programme on the basis of results of evaluations and consultation of the committee accompanying the project as well as implementation of alumni management
 - Preparation of accreditations
 - Quality assurance on the basis of the respective internal requirements, in particular definition of evaluation criteria
 - Preparation and implementation of an annual quality audit (logbook)
 - Supporting the selection of students on the basis of the established common admission and entry requirements

- Mediation of conflict cases in the context of the recognition of achievements and degrees.

The decision-making framework of the JAC is based on the universities' internal legal regulations (General Regulations) and the cooperation agreement. The JAC prepares decision papers for the university committees under the condition of a far-reaching consensus of the partners and presents them to the committees.

- b) A project-accompanying committee (PC), consisting of at least three representatives of international logistics companies, is established in the fourth semester for the purpose of comparing the practical relevance of the master's thesis. The project-accompanying committee ensures that the goals of the degree programme are secured in terms of employability. It advises and has no decision-making authority. The academic members of the JAC are also represented in the committee as the central coordinating body.

§ 4

Type and Mode of Study of the Degree Programme

- (1) The degree programme is an on-campus programme.
- (2) The degree programme is offered as a full-time course.
- (3) This is a continuing education degree programme.

§ 5

Standard Period of Studies and Enrolment

- (1) The standard duration of the programme is four semesters, with the first and second semesters being taught at CU and the third and fourth semesters at TH Wildau.
- (2) Enrolment takes place annually at CU in the winter semester. Tuition fees are payable at CU. At TH Wildau, the semester fee is payable.
- (3) The distribution of the study modules over the standard period of study can be found in the study plan of the degree programme in the appendix.
- (4) The prerequisite for access to the third and fourth semester modules taught at TH Wildau is the successful completion of all first and second semester modules at CU. At least eight of the modules taught in the first and second semesters at CU must be successfully completed by 15 May each year. Fulfilment of these requirements is checked by the International Office of TH Wildau on the basis of the student file available there. In case of non-compliance, students cannot be enrolled at TH Wildau.
- (5) There are two categories of tuition fees, one for Georgians and one for citizens from other states. Tuition fees are payable annually to CU. The tuition fees are set by the CU for each enrolment year, see the CU website.
- (6) Students conclude a study contract with CU.
- (7) Enrolment takes place at the CU. Students remain enrolled at the CU until successful completion of their studies or until exmatriculation. During the semesters at TH Wildau,

students are additionally enrolled at TH Wildau.

§ 6

Admission Requirements and Admission Criteria

(1) Mandatory requirements for admission:

- a. Proof of a completed bachelor's degree with at least 180 credit points according to the European Credit Transfer System (ECTS) in engineering or natural sciences and a subject-related orientation (e.g. logistics of production, factory and production planning; mechanical engineering and industrial engineering). Graduates of other degree programmes must provide evidence of course content that is comparable to these degree programmes. Study programmes are considered comparable if they have at least five of the following modules - three from (A), two from (B) - in an adequate form:

(A) Logistics and Supply Chains

- Engineering Basics
- Production Planning and Control / Production Logistics / Factory Planning / Basics of Quality Management
- Fundamentals of Logistics / Supply Chain Management
- Material Flow Technology / Material Flow Planning
- Transport and Storage
- Intermodal Transport Chains
- Traffic Systems / Traffic Engineering / Traffic Planning / Traffic Facilities
- Logistics Systems for Passenger and Freight Transport
- Fundamentals of Business Administration or Economics/Accounting/Controlling.
- Linear Optimisation (Operations Research)

(B) Applied Computer Sciences

- Data Structures, Algorithms and Programming
- Computer Networks and Distributed Systems
- Basics of Computer Science
- Databases (cloud), Web Technologies
- Information and Communication Technologies
- Information Security, Cryptographic Procedures
- Right to Information, Data Protection

In case of doubt, the JAC decides whether a subject-related orientation is given. For this purpose, the subjects studied so far, examination results and degrees are checked and an interview is held with the applicants.

Graduates from higher education institutions that do not use the ECTS system are subject to a case-by-case review for compliance with these requirements. This check is carried out jointly by the JAC.

- b. Language skills: Applicants must provide evidence of oral and written knowledge of the English language at level B2 according to the Guidelines or Proof of English Language Skills for Enrolment at TH Wildau in the currently valid version. German language skills are not obligatory.
 - c. Work experience: Work experience of at least one year in logistics is required.
 - (2) The CU, as the coordinating body of the joint degree programme, implements a uniform application procedure and a joint student selection process as follows:
 - a. Prospective students apply to CU through the online application process. The total number of places for students is limited. The regulations on this can be found in the respective valid enrolment regulations of the CU. The application period at CU runs from 01.07. to 15.08. each year.
 - b. The School of Engineering at CU reviews applications for formal compliance with its entry criteria and informs the JAC of the outcome of the review.
 - c. The JAC checks the admission criteria (state test for students from Georgia and aptitude test at CU) and, if the aptitude test is passed, conducts interviews with each applicant.
 - d. Following the interview, the JAC decides unanimously on the admission of the applicant. Each JAC member has the right of veto. In case of disagreement, the applicant will be rejected.
 - e. The CU informs the applicants about the decisions of the JAC in an admission letter, which also explains the further steps to complete the enrolment in the master's degree programme DLM.

§ 7

Specific Degree Programme Schedule

- (1) The degree programme has a modular structure. A total of 120 CPs is awarded upon successful completion.
- (2) The first and second semesters are focused on basic knowledge and fundamentals in Digital Logistics Management.
- (3) The third and fourth semesters are focused on more specific competence development in three core areas of Digital Logistics Management (digital transformation, networking and change, digital warehouse logistics and quality and risk management).
- (4) The modules listed in the study plan represent the minimum number of modules to be completed for successful completion of the degree programme. The location of the modules as well as the number, type and time of the examinations to be taken are contained in the study plan. The study plan is contained in the appendix to these Study and Examination Regulations. The CP acquired at CU are fully recognised by the partner university TH Wildau. Control of this takes place via a Transcript of Records (ToR).
- (5) The courses are held in English.
- (6) In order for DLM students to be able to start working on the master's thesis as planned at the beginning of the fourth semester, students can apply to the Examinations Board for an early examination date for repeat examinations.

The Examinations Board decides on such applications after consultation with the lecturer of the corresponding module. The examinations should be made possible in the fourth semester at the latest. Should a re-registration for the master's thesis be necessary in the fifth semester, no additional tuition fees towards CU will be incurred for this, the semester fee towards TH Wildau remains unaffected.

- (7) An up-to-date module handbook is available to students with the documents of the degree programme on the CU website. The module descriptions are binding.
- (8) The examiners at the partner universities award module grades for the modules completed there in each case and they determine grade conversion in accordance with the following conversion tables. When the certificate is issued, the relevant grade is awarded at the respective university according to the following two tables:

Grades at CU:

Evaluation	Grade	% equivalent	% equivalent (GPA)	GPA
Excellent	A	91 - 100	93.10 - 100	4
			90.45 - 93.09	3.67
very good	B	81 - 90	88.10- 90.44	3.33
			82.10 - 88.09	3
			80.45 - 82.09	2.67
Good	C	71- 80	78.10 - 80.44	2.33
			72.10 - 78.09	2
			70.45 - 72.09	1.67
Satisfactory	D	61 - 70	60.45 - 70.44	1
Enough	E	51 - 60	50.45 - 60.44	0.67
Did not pass	FX	41 - 50		0
Fail	F	0- 40		0

Grades at TH Wildau:

Description	ECTS	% Equivalent	GPA
Excellent - Excellent performance with minor flaws	A	95 < A <= 100	1,0

very good - Standard above average, with some shortcomings	A	$90 < A \leq 95$	1,3
Good - Overall the work is good, there are a few significant mistakes	B	$85 < A \leq 90$	1,7
	B	$80 < A \leq 85$	2,0
	C	$75 < A \leq 80$	2,3
Satisfactory - Good, with significant shortcomings	C	$70 < A \leq 75$	2,7
	C	$65 < A \leq 70$	3,0
	D	$60 < A \leq 65$	3,3
Enough - Meets the minimum criteria	E	$55 < A \leq 60$	3,7
	E	$50 \leq A \leq 55$	4,0
Did not pass - Additional work is needed to enable the Examinations Board to award credits - Needs additional important work - Need to repeat the whole module	F	$0 \leq A < 50$	5,0

- (9) The examination results are to be announced by the respective examiner to the International Office of the respective partner university no later than four weeks after the examination. The International Office forwards the module grades to the subject-specific institution of the CU. The ToRs prepared on this basis are sent to the respective other university.
- (10) Written examinations consisting only or largely of tasks in multiple-choice format are not permitted.
- (11) The subject semesters are taught in block teaching. The compulsory elective module in the first semester is chosen within the first 8 weeks after the start of the programme.

§ 8 Thesis

- (1) In the last semester according to the study plan, a master's thesis is to be written. With regard to the timing of the assignment of the topic of the master's thesis, reference is made to § 26 Para. 2 of the General Regulations of TH Wildau.
The master's thesis must be written in English.
- (2) It is recommended to write a practice-oriented thesis.
- (3) Each student is assigned a supervisor from among the teaching staff of the DLM degree programme who accompanies the student in the preparation of the master's thesis according to the student's personal needs and is authorised to conduct examinations and is active in the relevant subject area. The master's thesis can also be jointly supervised by two teachers from different partner universities in the DLM degree

programme, provided that they are authorised to examine and have relevant professional experience. Projects that are worked on in cooperation with a company can also be supervised by a second supervisor from the company, as long as they are a relevant professional.

- (4) The master's thesis is evaluated by two examiners. For the students, the first examiner is appointed by TH Wildau. This examiner should belong to the teaching staff in the DLM degree programme and acts as a supervisor in the process of writing the master's thesis according to paragraph (3). The second examiner should preferably be a member of the teaching staff of the DLM programme at CU. Both examiners must fulfil the applicable formal legal requirements of the General Regulations of TH Wildau.
- (5) The application for the thesis is made online via the Thesis Planner to the examination board of the Faculty of Engineering and Natural Sciences.
- (6) The regular period for writing the master's thesis is 22 weeks (30 CP).
- (7) The deadline for submission may be extended by the Examinations Board upon application by the candidate for reasons for which they are not responsible. Further details are regulated by the General Regulations of the Technical University of Applied Sciences Wildau.

§ 9 Final Examination

- (1) The final examination comprises the successful completion of all module examinations required in the study plan, the successful completion of the master's thesis and a colloquium in the form of an oral examination on the master's thesis.
- (2) The colloquium for the master's thesis is always open to the public. It is to be held after the two examiners' reports have been submitted. § Section 27, paragraph 8 of the General Regulations of Technical University of Applied Sciences Wildau remains unaffected by this.
The colloquium is held by an examination committee consisting of the two examiners of the written work. For urgent reasons, the chair of the Examinations Board may replace one of the examiners with another expert examiner. The student must be notified thereof without undue delay.
The examination is graded using a sliding grading scale.
Students have no right to be allocated any specific examiner.
- (3) As a rule, the colloquium for the master's thesis is a solo examination. If the master's thesis was written by a group, the colloquium for the master's thesis can also be carried out as a group examination with up to two students. It must be possible to delineate and grade the contribution of each individual student in the colloquium.
- (4) A protocol will be written on the colloquium. This examination protocol must contain the essential examination questions and answers and the overall grade. The protocol is written by the examiner or a co-examiner and must be signed by all participants in the examination commission.
- (5) In accordance with the General Regulations of TH Wildau, the examination result is to be announced to the student(s) and communicated to the International Office.

§ 10 Academic Degree

Once the programme has been successfully completed, the academic degree “Master of Engineering” (M.Eng.) is awarded as a joint degree by the partner universities of the DLM consortium (TH Wildau and CU). The certificate-issuing university is CU.

§ 11 Entry into Force

These Study and Examination Regulations come into force on the day after publication in the Official Notices of the TH Wildau and apply for the first time to the enrolment year 2023. For the enrolment year 2022, these Regulations apply with the exception of § 5 (4): At least eight of the modules taught in the first and second semesters at the CU do not have to be successfully completed by 15 May each year.

Wildau, 6 June 2023

Signed by Prof. Dr. rer. nat. Ulrike Tippe
President of
the Wildau University of Applied Sciences

Appendix:

- Curricula

Appendix: Study Plan

№	Digital Logistics Master <i>Sem. Hours /Exam Form</i>	Year					ECTS
		I - (CU)		II - (THWi)			
		ECTS					
		I Semester	II Semester	III Semester	IV Semester		
1.	Decision Support Systems in Logistics <i>30 / CTE</i>	6				6	
2.	Elective Module* <i>30 / CTE</i>	6				6	
3.	Financial Management <i>30 / CTE</i>	6				6	
4.	Intermodal Transport and Terminal Management <i>30 / CTE</i>	6				6	
5.	Advanced Energy Technologies in Logistics <i>30 / CTE</i>	6				6	

№	Digital Logistics Master <i>Sem. Hours /Exam Form</i>	Year					ECTS	
		I - (CU)		II - (THWi)		ECTS		
		ECTS						ECTS
		I Semester	II Semester	III Semester	IV Semester			
6.	Enterprise Resource Planning (ERP) Systems <i>30 / CTE</i>		6			6		
7.	Global Logistics using IT-Systems <i>30 / CTE</i>		6			6		
8.	Traffic and Transport Planning Systems <i>30 / CTE</i>		6			6		
9.	Traffic Evaluation and Environmental Effects <i>30 / CTE</i>		6			6		
10.	Road Rail Air Maritime Shipping <i>30 / CTE</i>		6			6		
11.	Advanced Logistics Network Operations <i>30 / CTE</i>			6		6		
12.	Business Analytics and Digital Transformation <i>30 / CTE</i>			6		6		
13.	Logistics Quality and Environmental Management <i>30 / CTE</i>			6		6		
14.	Digital Warehouse Management <i>30 / CTE</i>			6		6		

№	Digital Logistics Master <i>Sem. Hours /Exam Form</i>	Year				ECTS
		I - (CU)		II - (THWi)		
		ECTS				
		I Semester	II Semester	III Semester	IV Semester	
15.	Digital Risk and Change Management <i>30 / CTE</i>			6		6
16.	Master's Thesis <i>CTE</i>				30	30
	Sum	30	30	30	30	120

*** Compulsory elective module**

№	Digital Logistics Master - Elective Modules -	Year				ECTS
		I - (CU)		II - (THWi)		
		ECTS				
		I Semester	II Semester	III Semester	IV Semester	
2.1	Strategic Management CTE	X				
2.2	Leadership CTE					