

**CAUCASUS UNIVERSITY**



კავკასიის ტექნოლოგიების სკოლა  
CAUCASUS SCHOOL OF TECHNOLOGY

**Graduate Program in  
Digital Logistics Management**

**Caucasus University**  
**Caucasus School of Technology**

<b>Program Name</b>	Digital Logistics Management		
<b>Degree level</b>	Master's		
<b>Type of the educational program</b>	Academic		
<b>Instruction Language</b>	English		
<b>Expected Qualification</b>			
In English:	Master of Engineering Logistics		0619
In Georgian:	საინჟინრო ლოგისტიკის მაგისტრო		0619
<b>Date of Program Approval</b>	27 November 2020 (N01/01-70)		
<b>Academic heads of the Program</b>	Prof. Dr. Giorgi Dobarjginidze Co-Head Prof. Dr. Frank Gillert		
<b>Program Volume in Credit Hours</b>			
<p>The program consists of 120 ECTS credits. Caucasus University uses European Credit Transfer and Accumulation System (ECTS) to describe volume of expected work from the students. A credit is a unit for volume of work that is required from the students in terms of time spent. 1 ECTS credit is worth of 25 hours of student's academic workload.</p> <p>Courses in the program are allocated based on their logical structure and sequence. Courses build up on the previously studied material and, therefore, enable students to acquire necessary knowledge. Courses in the program are divided into:</p> <ul style="list-style-type: none"> <li>- Mandatory learning courses -102 ECTS credits (Including Master Thesis - 30 credits)</li> <li>- Optional learning courses - 18 ECTS credits</li> </ul>			
<b>Admission Requirements</b>	<ul style="list-style-type: none"> <li>• Any person having thr Bachelor's degree</li> <li>• The precondition for the admission to the program is to pass the General Masters Examination held by the Legal Entity of Public Law - The National Assessment and Examinations Center.</li> <li>• Enrollment in the program without passing the general master's exam is carried out in accordance with the rules established by law.</li> <li>• Successfully pass the relevant entrance exam with the specialty of Information Technology Management (includes components of English comprehension and writing according to B2 level and general logical and quantitative reasoning questions; A person may be exempted from this condition if there is a language proficiency document (IELTS-6.0, TOEFL-78, other relevant B2 level international certificate or other circumstances set by university regulation))</li> <li>• Successfully completed an interview with the Master's Admissions Commission of the Caucasus School of Technology.</li> <li>• Mobility to the program is allowed in accordance with procedures set by the relevant law.</li> </ul>		

## Program Description

### General Information

The extra-occupational master „Digital Logistics Management“ in the graduate program is certified as a Master of Engineering Logistics. The content of the program is oriented on diverse requirements: Digitalisation of the economy, personal leadership, competences in project management, sustainable development in technical and environmental topics as well as the use of strategies in the area of logistics and supply chain management. All highly needed skills are claimed by the society, economy, industrial sector and political administration as competence requirements for the wider logistics sector.

During the program development it was taken into the consideration the experience of foreign universities, having the degree programs in the similar filed; The recommendations of leading specialists and professors of the partner university (Wildau Technical University of Applied Sciences) obtained through the exchange visits of school administration and professors to Georgia. The feature of the program is the in-depth examination of a number of issues that have been selected in light of current and growing demands on Logistics Information Technology managers both in the Georgian labour market and internationally as well.

The program curriculum has a technical focus and gives good understanding of business operations and strategy. Students will learn how IT must be aligned with the strategy of the organization. The teaching process of the program is based on modern methodologies of practice-oriented teaching taking into account the elements of scientific research. It focuses on in-depth learning of the disciplines enriched with the latest scientific or practical information management technologies. Compatible with modern international standards, the program enables the student to acquire deep theoretical knowledge in the content field and to master good practical skills. The thoughtful proportion of the theoretical and practical components of the program provides the basis for a graduate to pursue a career as a prospective Digital Logistics Mangement specialist, both in Georgia and abroad. It is divided in the stages “Engineering” , “General Mangement“ and „IT and Mangement“, which have a special view on digitilization in logistics.

A language of the study program is English which extends the audience of the program beyond Georgia. Over all the study program is focussed on already professional proved younger management in the area of logistics. In ther area of southern Caucasus along the silk road a dynamic and sustainable sector of logistics industry is devolpping. The need of IT-compentence and IT-skills for the integration of information tool in the logistics sector is obviously.

### Program Objectives

The objectives of the program in Digital Logistics Management are to:

- Give students an opportunity to develop research skills in logistics engineering and management, deep knowledge of information technology as well as business management methodologies and thereby ensure their employment in leading positions according to their qualifications;
- Prepare up-to-date specialist in Digital Logistics Management with deep knowledge of logistics information technologies and good analysis of business environment and strategy, competence in innovative methods of management and analytical problem solving skills.

### Learning Outcomes

Upon completion of the Master's degree program in Digital Logistics Management, the graduate will acquire the following competencies:

- Understand and share the role of logistics information technologies through the knowledge of the latest theories in information systems, management methodologies and international standards;
- Effectively plan the structure of the logistics technology in the organization, develop information technology service delivery strategies;
- Use methods to assess the strengths and weaknesses of an organizational environment, identify strategic risks, and use assessment tools. Develop ability to operate independently while planning and managing in a risky and dynamically changing environments;
- Work with modern tools and applications of logistics system planning and logistics process modelling;
- Adapt and apply modern business technologies in the organization, evaluate complex problems of logistics systems, analyze results and solve them in an innovative way;
- Conduct scientific theoretical and practical research in the field of logistics information management and apply modern methodology in scientific research;
- Calculate and evaluate environmental effects of logistical approaches.

### Building a Career

The program gives students the chance to advance to Logistics and Supply Chain Leadership positions through gaining strong set of technical and managerial skills which are necessary to succeed in the logistics and supply chain field today.

Program graduates will have an opportunity to work in a variety of environments such as academia, research, industry, government, private and business organizations. Examples of job titles of program graduates may include: Transportation and Logistics Manager, Chief Supply Chain Officer, Chief Operating Officer, Logistics Operations Officer, Warehouse Manager, Supply Chain Development manager, Project Manager, etc. On the Georgian labor market employers are the university's partner organizations, as well as other big or small business companies, transport and logistics companies, manufacturers, Wholesale, distribution and retail companies, international companies, educational institutions, governmental organizations etc.

### Study Continuation Opportunities

The program graduates can continue their studies at any of Doctoral programs in Georgia or abroad, in accordance with the regulation required by the law.

## Student Evaluation and Grading System

The aim of the evaluation is to assess to what extent the learning outcomes prescribed by the syllabus are reached. The student's evaluation consists of multiple components and evaluates the course goals and learning outcomes by applying measurable criteria and appropriate rubrics. The student's evaluation is based on four major principles: objectivity, trustworthiness, validity and transparency.

The students are evaluated according to two sets of evaluation: summative and formative. The aim of the summative assessment is to accurately evaluate the student's performance. It monitors quality of learning and the level of the student's achievement in relation to the goals set by the course. The formative assessment is oriented on the student's development. It gives students appropriate feedback on their achievements.

The evaluation system includes 100 points and envisages:

a) Five types of positive grades:

a.a) (A) Excellent – 91-100 points of assessment;

a.b) (B) Very good – 81-90 points of maximal assessment;

a.c) (C) Good – 71-80 points of maximal assessment;

a.d) (D) Satisfactory – 61-70 points of maximal assessment;

a.e) (E) Sufficient – 51-60 points of maximal assessment;

b) two negative grades:

b.a) (FX) Did not pass – 41-50 points of maximal assessment, which means the student needs to work harder and is allowed to retake the exam one more time after working independently;

b.b) (F) Fail – 40 points or less of maximal assessment, which means the student's work is insufficient and he/she has to retake the course.

Students are awarded credits on the basis of the final evaluation comprising the scores of the interim and final exam assessments.

The attainment of student's learning outcomes considers the interim and final evaluations, for which relative proportions out of the total score (100 points) and a minimum competence level are allocated. Namely, out of 100 points, the interim results are allocated 70 points, while the final exam results are 30 points. In interim evaluations the minimum competency barrier to be reached is 59%. The interim evaluation includes assessment components, the total of which is 70 points. For each assessment component, the evaluation is based on the pre-determined learning goals, task-oriented clear criteria and the learning rubrics drawn on their basis. In the interim results the student has to accumulate at least 59% of the 70 points to be allowed to take the final exam. The student's final examination is passed, if he/she gets at least 60% of the total 30 points.

In case the student fails to overcome the minimum competency barrier of the final exam, he/she is allowed to retake the final examination. The student shall retake the final exam within the period prescribed by the academic calendar no later than 5 days after announcement of the results of the final exam.

In case the student totally scores 0-50 points or fails to overcome the minimum competency barrier set for any form of the evaluation (Interim/Final exam), he/she shall be given a grade of "F-0".

## Teaching and Learning Methods

Different teaching methods are employed during the teaching process depending on the topics covered. Those include:

**Discussions/debates** – one of the most common methods of interactive teaching. Quality of Students' involvement is higher; classes are more dynamic and students are more active. Any discussion can turn into a debate. The method allows professors to give questions and get answers and enables students to develop skills of discussion and debates and prepares them for justifying their opinions and points.

**Team (Collaborative) work** – the method implies dividing students into teams and assigning different tasks to them. Each team member works on the task individually and shares his/her ideas with the rest. Depending on the type of task, team members can change tasks and roles. The strategy ensures students' maximum involvement in the learning process.

**Problem Based Learning (PBL)** – a problem is given and analyzed in order to acquire knowledge.

**Cooperative Learning** – where the whole class is responsible not only for his/her own learning and understanding of the subject matter but also for aiding and assisting others in better understanding it. Each student works on a problem until he/she fully understands everything.

**Heuristic method** – is largely incremental. Students are to discover facts on their own and make links between them.

**Case Studies** – Professors and students discuss a particular case and fully comprehend an issue at hand. In Medicine it can be discussion of the medical record of a particular patient, in Political Science it can be analysis of a conflict between any two countries (e.g., Armenia-Azerbaijan), etc.

**Brain storming** – the method facilitates to generating as many ideas about a particular topic as possible. The method encourages creativity; it is particularly efficient with a large group of students and consists of a few stages:

- Creative approach to a problem/issue
- Listing the ideas generated, without any criticism, on the board.
- Identifying the ideas most closely linked with the problem/issue;
- Identifying criteria for finding which idea is more relevant to the issue/problem at hand;
- Evaluating selected ideas according to pre-selected criteria;
- Selecting the best idea – the one having the best evaluation or meeting most of the criteria;

**Role play** – students are assigned different roles, which allows them to look at a problem from different perspectives. Like debates, role play also helps students develop skills needed for giving their opinion and justifying their judgments.

**Method of Demonstration** – displaying visual materials. In majority of cases it is better to give students both audio and visual material simultaneously; the material can be given by both – professors and students; the method implies giving visual information on the whiteboard or carrying out a complex laboratory experiment.

### **Induction, Deduction, Analysis, Synthesis.**

A deductive approach means that the teacher gives students a new concept, explains it and then has the students practice using the concept.

In contrast with the deductive method, inductive instruction makes use of student “noticing”. Instead of explaining a given concept and following this explanation with examples, the teacher presents students with many examples showing how the concept is used. The intent is for students to “notice”, by way of the examples, how the concept works and fits together.

With the method of analysis a problem is disintegrated into components. This method facilitates to comprehensive analysis of each of the constituent elements of a more complex problem.

Method of synthesis is opposite of the process of analysis. One whole is made by grouping its constituent elements, which allows students to look at a problem as one whole.

**Explanatory method** – discussing a particular issue, i.e., professor provides examples and discusses all sides and details.

**Action-oriented teaching** – requires active participation of both professor and students where major emphasis is put on practical interpretation of theoretical knowledge.

**E-learning** - The method combines three ways of instruction

Teaching methods complement each other during the teaching process. Course syllabus provides detailed information about teaching methods used.

## Human Resources

The Program is implemented by the 12 Invited Personnel (Local and Foreign) who, according to their qualification are ready to help students in developing the competencies, defined by the program.

## Partnership

Caucasus University's and Caucasus School of Technology's Partner organizations: foreign and Georgian higher educational institutions, as well as governmental and non-governmental organizations are also involved into the program implementation, within the framework of a Memorandum of Cooperation.

### **Partner Governmental and non-governmental organizations:**

- HR Recruitment Agency;
- Diplomat Georgia
- Hidelberg Cement
- Georgian Railway
- Maersk Group
- Mediterranean Shipping Company (MSC)
- APM Porti (Poti Port)
- Batumi Sea Port
- Aliance Group Holding;
- GITA;
- EY;
- Immobiliare;
- Silknet;
- UGT;
- Orient Logic;
- Georgian National Communications Commission;
- Ministry of Defence of Georgia;
- Ministry of Justice of Georgia;
- Ministry of Finance of Goergia;
- National Bank of Georgia;
- Tbilisi City Hall.

### **Foreign higher educational institutions:**

- Tallinn University of Technology;
- Riga Technical University;
- Upper Austria University of Applied Sciences (Hagenberg);
- FH JOANNEUM University of Applied Sciences;
- University of Southern Denmark;
- Kaunas University Of Technology;
- University of Lodz;
- University of Alcala;
- Fairleigh Dickinson University;
- New Jersey City University;
- Ming Chuan University of Taiwan;
- Universidad Autonoma de Gvadajajara, Mexico;
- IESB, Brasilia Higher Education Institute, Brazil.

## Material and Technical Resources

For reaching the outcomes envisaged by the Program, the University infrastructure and material and technical resources unrestrictedly accessible for the students and the academic personnel, namely: Auditoria equipped with appropriate equipment and conference hall; Computer classes/labs, computers connected to the internet and intranet and specially tailored software guaranteeing smooth operation of learning/teaching process; The material resources of the University ensure the goals set by the Program are reached and the planned, outcomes are realized:

Premises: the Program is conducted on the University premises where sanitary-hygiene and safety rules are adhered to. The University building fully complies with technical requirements established for Universities; the University has auditoria designed for lectures and practical classes fully equipped with appropriate equipment and devices (projectors, desks and chairs, whiteboards, etc.).

**Library:** The University library has printed and electronic fund relevant to the implementation of the Bachelor's Program. Library resource fund is accessible for the students and academic and invited personnel (20 605 printed and 10877 electronic units). The library has an electronic catalogue. The library has a Reading Room equipped with appropriate property (chairs, desks, computers). The library has one photocopier which can be used by students with the help of two library staff members. The Reading Room allows students to use internet and international electronic resources:

- ✓ [EBSCO HOST](#)
- ✓ [ScienceDirect](#)
- ✓ [Scopus](#)
- ✓ [Sci-val Funding\(Funding Institutional\)](#)
- ✓ [HeinOnline](#)
- ✓ [Taylor and Francis](#)
- ✓ [Math Scientific Publishing \(MSP\)-Journals](#)

**Information-Communication Technologies** – laboratories with computer equipment appropriate for the Bachelor's Program and corresponding to modern IT requirements are available at the University: computers are connected to the internet and can be accessed by students, academic, invited and administrative personnel. The computers are equipped with appropriate instruments/applications. The auditoria and computer classes are equipped with local net and internet.

The University operates an electronic system for organizing the educational process, which fosters academic processes and makes monitoring of the students' academic performance possible at all times. The University makes the catalogue of the educational programs and the information on implementation of the educational programs and conducting the educational process public and accessible at all times.

Currently, Caucasus University is equipped with modern computers and photocopying machines (they were replaced with the most up-to-date ones in 2018). The University has seven computer classes on A, B and C floors. Such classes are equipped with PC and Multimedia Projectors. Projectors and Computers are available in each auditorium. The University administration and practically all the employees have access to the computers and internet. The University operates a Computer Park with more than 380 units. In addition, the University has printers and scanners; a few so-called Smart Boards, photocopying machines "Kyocera" brand, color photocopying machines "HP MFD" type. Wi-Fi and IP telephone connection are accessible throughout the whole University premises. There are three modern servers in the University Server Department where appropriate net equipment is installed (with Cisco and Aruba/HP switches, Fortinet, NG Firewall, wireless controller and access point, etc.) more than 100 such devices. The University is connected to the external net and has 150/150 Mbps access to local and global connections.

The mentioned resources are freely accessible for the University students, academic, invited and administrative personnel. All the interested persons are informed on the possibility of using these resources and are familiar with the rules and procedures of their utilization.

#### **Financial Resources**

The Budget of the program envisages revenues received from students and all the expenses required for full functioning. Financial calculations are base on following data:

- Contact hours required for teaching
- Number of course (mandatory, elective and foreign language)



- Payment of lecture hours
- Material support of students during process
- Expenditure of university administration
- Expenditure of Development/Accreditaion/ Internationalization of the program
- The unforeseen expenditure during the program.

In the budget of the program is set “University Reserve Fund”, which is to ensure to cover all expenses for the fully functioning of the program, when number of students are at minimum. In case of amendment to the program, the program budget is adjusted according to the amendment.

The budget of the program is approved by the president of Caucasus University, which is confirmed by order, attached with calculations of the program budget.

## Program Curriculum

The study program is divided into the stages “Engineering”, „General Management“ and „IT and Management“ which regard the content areas of Logistics and Digitalisation:

- Modules for the core competences of the students investigating advanced approaches and using tools and strategies of calculating and evaluating on a scientific level.
- Modules for the development of quantitative and qualitative competences for decision making in tactical and strategic situations.
- Modules for the knowledge and assessment of the technical development along the logistic Added Value Chains.

№	Course Code	Prerequisite	Course Name	Year				
				I		II		ECTS
				ECTS				
				I Semester	II Semester	III Semester	IV Semester	
<b>Required Courses</b>								
1.	LOG 5141		Decision Support Systems in Logistics	x				6
2.	LOG 5142		Fianacial Management	x				6
3.	LOG 5143		Intermodal Transport and Terminal Management	x				6
4.	LOG 5144		Advanced Energy Technologies in Logistics	x				6
5.	LOG 5241	LOG 5143	Global Logistics using IT Systems		x			6
6.	LOG 5242	LOG 5141	Traffic and Transport planning Systems		x			6
7.	LOG 5243	LOG 5143	Road Rail Air Maritime shipping		x			6
8.	LOG 5341	LOG 5241	Advanced Logistics Network Operations			x		6
9.	LOG 5342		Business analytics and Digital Transformation			x		6
10.	LOG 5343	LOG 5144	Logistics Quality and Environmental Management			x		6
11.	LOG 5344	LOG 5241	Digital Warehouse Mangement			x		6
12.	LOG 5345		Digital Risk and Change Mangement			x		6
13.	MST 5441		Master's Thesis				x	30

Electives										
14.	LID 5140		Leadership		x					6
15.	MNG 5140		Strategic Management		x					6
16.	ISM 5244		ERP Systems			x				6
17.	LOG 5244	LOG 5144	Traffic evaluation and environmental Effects			x				6
18.	MNG 5340		Decision Making			x				6
19.	ISM 5344		Project Management			x				6
ECTS					Per Semester	30	30	30	30	
					Per Year	60		60		

**Distribution of Total Hours**

Nº	Course Code	Course Name	ECTS Credits\ Hours	Lecture Hours	Seminar / Practical Work Hours	Midterm and Final Exam Hours	Presentation Hours	Out of class preparation Hours
1	LOG 5141	Decision Support Systems in Logistics	6/150	30	30	4		86
2	LOG 5142	Fianacial Management	6/150	30	30	4		86
3	LOG 5143	Intermodal Transport and Terminal Management	6/150	30	30	4		86
4	LOG 5144	Advanced Energy Technologies in Logistics	6/150	30	30	4		86
5	LOG 5241	Global Logistics using IT-Systems	6/150	30	30	4		86
6	LOG 5242	Traffic and Transport planning Systems	6/150	25	35	4		86
7	LOG 5243	Road Rail Air Maritime shipping	6/150	30	30	4		86
8	LOG 5341	Advanced Logistics Network Operations	6/150	30	30	4		86
9	LOG 5342	Business analytics and Digital Transformation	6/150	30	30	4		86
10	LOG 5343	Logistics Quality and Environmental Management	6/150	30	30	4		86
11	LOG 5344	Digital Warehouse Mangement	6/150	30	30	4		86
12	LOG 5345	Digital Risk and Change Mangement	6/150	30	30	4		86
13	MST 5441	Master's Thesis	30/750	20				730
14	LID 5140	Leadership	6/150	18	6	4	2	120
15	MNG 5140	Strategic Management	6/150	18	6	4	2	120
16	ISM 5244	ERP Systems	6/150	19	5	4	2	120
17	LOG 5244	Traffic evaluation and environmental Effects	6/150	30	30	4		86
18	MNG 5340	Decision Making	6/150	21	5	4		120
19	ISM 5344	Project Management	6/150	22	2	4	2	120

### Map of Learning Outcomes

Nº	Semester	Course code	Learning Outcomes						
			Understand and share the role of logistics information technologies through the knowledge of the latest theories in information systems, management methodologies and international standards	Effectively plan the structure of the logistics technology in the organization, develop information technology service delivery strategies;	Use methods to assess the strengths and weaknesses of an organizational environment, identify strategic risks, and use assessment tools. Develop ability to operate independently while planning and managing in a risky and dynamically changing environments;	Work with modern tools and applications of logistics system planning and logistics process modelling;	Adapt and apply modern business technologies in the organization, evaluate complex problems of logistics systems, analyze results and solve them in an innovative way;	Conduct scientific theoretical and practical research in the field of logistics information management and apply modern methodology in scientific research;	Calculate and evaluate environmental effects of logistical approaches.
1.	I	Decision Support Systems in Logistics			x		x	x	
2.	I	Fianacial Management		x					
3.	I	Intermodal Transport and Terminal Management			x	x			
4.	I	Advanced Energy Technologies in Logistics	x	x	x	x			
5.	II	Global Logistics using IT-Systems	x	x					
6.	II	Traffic and Transport planning Systems				x	x	x	x
7.	II	Road Rail Air Maritime shipping	x			x			
8.	III	Advanced Logistics Network Operations	x	x		x			
9.	III	Business analytics and Digital Transformation	x					x	
10.	III	Logistics Quality and Environmental Management	x			x			x
11.	III	Digital Warehouse Mangement	x		x		x		
12.	III	Digital Risk and Change Mangement	x		x				
13.	IV	Master's Thesis	x	x	x	x	x	x	

**Map of Program Objectives and Learning Outcomes**

<p><b>Learning Outcomes</b></p> <p><b>Program Objectives</b></p>	<p>Give students an opportunity to develop research skills in logistics engineering and management, deep knowledge of information technology as well as business management methodologies and thereby ensure their employment in leading positions according to their qualifications</p>	<p>Preprare up-to-date specialist in Digital Logistics Management with deep knowledge of logistics information technologies and good analysis of business environment and strategy, competence in innovative methods of management and analytical problem solving skills</p>
<p>Understand and share the role of logistics information technologies through the knowledge of the latest theories in information systems, management methodologies and international standards;</p>	<p align="center"><b>X</b></p>	<p align="center"><b>X</b></p>
<p>Effectively plan the structure of the logistics technology in the organization, develop information technology service delivery strategies;</p>		<p align="center"><b>X</b></p>
<p>Use methods to assess the strengths and weaknesses of an organizational environment, identify strategic risks, and use assessment tools. Develop ability to operate independently while planning and managing in a risky and dynamically changing environments;</p>	<p align="center"><b>X</b></p>	<p align="center"><b>X</b></p>
<p>Work with modern tools and applications of logistics system planning and logistics process modelling;</p>		<p align="center"><b>X</b></p>
<p>Adapt and apply modern business technologies in the organization, evaluate complex problems of logistics systems, analyze results and solve them in an innovative way;</p>		<p align="center"><b>X</b></p>
<p>Conduct scientific theoretical and practical research in the field of logistics information managemnt and apply modern methodology in scientific research;</p>	<p align="center"><b>X</b></p>	
<p>Calculate and evaluate environmental effects of logistical approaches.</p>	<p align="center"><b>X</b></p>	

### Academic and Invited Personnel

#	Personnel Name	Status	Course
1	Prof. Herbert Sonntag	PhD	Decision Support Systems in Logistics
			Intermodal Transport and Terminal Management
2	Giorgi Burduli	Master	Leadership
3	Rusudan Chachanidze	Master	Strategic Management
4	Michail Müller	Master	Fianacial Management
5	Prof. Michael Herzog	PhD	Advanced Energy Technologies in Logistics
6	Inga Nadaraia	Master	ERP Systems ansd Applications
7	Nino Gorgadze	Master	Project Management
8	Givi Kupatadze	PhD	Theory of Decision Making
9	Prof. Giorgi Doborjginidze	PhD	Global Logistics using IT-Systems
10	Temur Ugulava	Master	Traffic and Transport planning Systems
			Traffic evaluation and environmental Effects
11	Prof. Frank Gillert	PhD	Advanced Logistics Network Operations
			Business analytics and Digital Transformation
12	Prof. Dr. Werner Sohn	PhD	Logistics Quality and Environmental Management
			Digital Warehouse Mangement
			Digital Risk and Change Mangement
			Road Rail Air Maritime shipping