



## RĪGAS TEHNISKĀ UNIVERSITĀTE

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### Study programme "Logistics and Supply Chain Management"

#### Main attributes

Title	Logistics and Supply Chain Management
Identification code	DML0
Education classification code	45482
Level and type	Academic Master (Second Cycle) Studies
Higher education study field	Information Technology, Computer Engineering, Electronics, Telecommunications, Computer Control and Computer Science
Head of the study field	Agris Nikitenko
Deputy head of the study field	Jurģis Poriņš
Department responsible	Faculty Of Computer Science Information Tehnology And Energy
Head of the study programme	Andrejs Romānovs
Professional classification code	
The type of study programme	Full time
Language	English
Accreditation	29.11.2023 - 30.11.2029; Accreditation certificate No 2023/44-A
Volume (credit points)	120.0
Duration of studies (years)	Full time studies - 2,0
Degree or/and qualification to be obtained	Master degree of engineering science in logistics and supply chain management
Qualification level to be obtained	The 7th level of European Qualifications Framework (EQF) and Latvian Qualifications Framework (LQF)
Programme prerequisites	First cycle higher education in engineering, natural sciences or social sciences (economics, management), or comparable education and an entrance exam. English language skills equivalent to at least B2 level

#### Description

Abstract	The study programme focuses on topical problems of logistics systems and supply chain management, in particular, on appropriate information technology based solutions and their implementation, and contribute to the education of highly qualified professionals who have the knowledge and skills to operate in an international environment. Study programme has a strong focus on students' competencies development in logistics information technology solutions, simulation and modelling methods and tools, which develops the technical approach to solving logistics systems and supply chain problems. The study programme offers the latest developments in the industry at a high international level, as it joins three universities from different European countries, which provide expertise in different specializations, namely "Logistics information systems" (Riga Technical University, Latvia), "Transport Logistics" (UAB Autonomous University of Barcelona, Spain) and "Logistics Systems Engineering and Implementation" (UASW Technical University of Applied Sciences Wildau, Germany). Students and academic staff mobility promotes knowledge and experience exchange among partner universities.
Aim	To educate professionals able to understand and implement logistics systems technology, as well as identify, analyse and solve problems in logistics systems and supply chains, related to their design, implementation, operation and management, including logistics information technology and systems, and to develop students' ability to carry out scientific work, participate in local and international projects and continue doctoral studies.
Tasks	<ul style="list-style-type: none"><li>•Tasks of study programme:</li><li>- to develop students' systems thinking ability and their skills needed in the area of logistics systems and supply chain management;</li><li>- to use fundamental and classical solutions along with recent scientific achievements, including information technology, providing effective solutions of various problems in logistics systems and supply chains;</li><li>- to provide students with knowledge and experience from different scientific areas by cooperating with staff from different European universities;</li><li>- to provide staff and students mobility within the partner universities;</li><li>- to ensure the flexibility of the study programme and possibility to modify it in order to follow changes in the labour market and new developments in technologies;</li><li>- to encourage students to participate in scientific research;</li><li>- to prepare and motivate students for further doctoral studies.</li></ul>

Learning outcomes	<p>The graduate of the study programme:</p> <ul style="list-style-type: none"> <li>- is able to solve problems of logistics systems and supply chains by taking into account general management concepts, human resources, environmental issues as well as technological and economic aspects;</li> <li>- is able to identify problems in the area of logistics systems and supply chains and evaluate their complexity;</li> <li>- is able to select and apply suitable methodologies and technologies to solve problems in the field of logistics systems and supply chains;</li> <li>- is able to evaluate different alternatives and select the solution to be implemented in the field of logistics systems and supply chains;</li> <li>- is able to elaborate solid arguments to convince and motivate decision makers, select the proper supply chain partners and then plan and coordinate the project to implement the solution;</li> <li>- is able to develop solutions to specific problems, by using modern information technology in the field of logistics systems and supply chains;</li> <li>- is able to choose the best transportation solution for the problem in the field of logistics systems and supply chains;</li> <li>- is able to use modern engineering and technology solutions for specific problems in the field of logistics systems and supply chains;</li> <li>- is able to acquire new knowledge and skills independently;</li> <li>- is able to justify advantages or disadvantages of a particular problem solution to the customer or other specialist;</li> <li>- is able to follow the rules of ethics within the scope of one's authority;</li> <li>- is able to participate in local and international scientific projects as well as lead them;</li> <li>- is able to study at postgraduate level.</li> </ul>
Final/state examination procedure, assessment	<p>The final examination consists of the defence of a Master Thesis and a test in fundamental and special areas of knowledge. Master Thesis is defended in front of a special examination commission meeting, with the opportunity for the representatives from partner universities to participate in the work of the commission (either in person or teleconference mode). The learning outcomes in Master Thesis are evaluated according to 10 grade system.</p>
Description of the future employment	<p>Graduates can work as a logistics systems implementation consultants and supply chain managers, logistics information systems managers, logistics and information technology project managers, logistics application software specialists, logistics systems and supply chain modelling specialists, purchasing or transportation managers, information technology department managers for logistics company. Graduates are also prepared for continuing work in industrial research and development as well as in scientific research and higher education.</p>
Special enrollment requirements	<p>English competency requirements: TOEFL (Test of English as a Foreign Language) computer-based version – min 250 points, paper-based version - min 630 points; IELTS (International English Language Testing System) - min 6.5 points, „Cambridge Proficiency Certificate of English” - level C or higher, or successful assessment of English in previous diploma supplement, except in the case if previous education is obtained in English.</p>
Opportunity to continue studies	<p>Doctoral studies.</p>

Courses

No	Code	Name	Credit points
<b>A</b>		<b>Compulsory Study Courses</b>	<b>54.0</b>
1	DE0775	Basics of Logistics and Supply Chain Management	6.0
2	DE0786	Modelling and Simulation in Logistics	6.0
3	DE0787	Optimization Methods in Logistics	3.0
4	DE0782	Information Technologies in Logistics	6.0
5	DE0781	Material Handling Technologies and Automated Solutions	6.0
6	DE0784	Supply Chain Network Management Technologies	6.0
7	IV0540	Global Markets and Supply Chains	3.0
8	DE0774	LSCM European Dimension	3.0
9	DE0785	Systems Thinking	6.0
10	DE0778	Project Management	3.0
11	IV0539	Quality and Environmental Management	3.0
12	IV0645	Human Resources	3.0
<b>B</b>		<b>Compulsory Elective Study Courses</b>	<b>33.0</b>
<b>B1</b>		<b>Field-Specific Study Courses</b>	<b>27.0</b>
		<i>Logistics Information Systems</i>	<i>27.0</i>
1	DE0777	Logistics Information Systems	9.0
2	DE0180	Electronic Commerce in Logistics	5.0
3	DE0788	Systems Analysis	3.0
4	DE0080	Decision Synthesis Principles and Practice in Logistics	13.0
		<i>Logistics Systems Engineering and Implementation</i>	<i>27.0</i>
1	DE0780	Material Handling System Design and Analysis	9.0
2	DE0783	Transport System Design and Analysis	9.0
3	DE0004	Logistics Management and Control System Specification and Evaluation	9.0
4	DE0005	Logistics System Implementation and Ramp-up	9.0
<b>B2</b>		<b>Humanities and Social Sciences Study Courses</b>	<b>6.0</b>
1	IV0646	Organization and Management of International Economic Relations	3.0
2	IV0542	International Business	3.0
3	BM0740	Industrial Engineering	3.0
4	DE0779	Information Technology Fundamentals	3.0
<b>C</b>		<b>Free Elective Study Courses</b>	<b>3.0</b>
<b>E</b>		<b>Final Examination</b>	<b>30.0</b>
1	DE0776	Master Thesis	30.0