



RĪGAS TEHNISKĀ UNIVERSITĀTE

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Study programme "Total Quality Management"

Main attributes

Title	Total Quality Management
Identification code	ICK0
Education classification code	42526
Level and type	Professional Bachelor (First Cycle) Studies
Higher education study field	Management and Administration, Real Estate Management
Head of the study field	Inga Lapiņa
Department responsible	Faculty of Engineering Economics and Management
Head of the study programme	Inga Lapiņa
Professional classification code	2423
The type of study programme	Full time, Extramural
Language	Latvian
Accreditation	26.05.2021 - 27.05.2027; Accreditation certificate No 2022/35
Volume (credit points)	240.0
Duration of studies (years)	Full time studies - 4,0; Extramural - 5,0
Degree or/and qualification to be obtained	Professional bachelor degree in quality management / engineer in process quality management
Qualification level to be obtained	The 6th level of European Qualifications Framework (EQF) and Latvian Qualifications Framework (LQF); the 6th level of professional qualification
Programme prerequisites	General or vocational secondary education

Description

Abstract	<p>Nowadays, Quality Management is an integral part of operations of any organization. Quality management and conformity assessment are the tools assisting to create such an organizational environment, where processes, products and services meet the needs and expectations of customers/ clients, are safe and reliable in use, as well as creating value both for the society and environment.</p> <p>Students of the professional bachelor study programme acquire the necessary knowledge, skills and competencies for comprehensive and effective work in the field of quality management. Study programme graduates are able to develop processes; to implement and monitor development activities; to develop, implement, manage and improve the quality management system; to analyse, evaluate, form, disseminate and put into practice quality management methods in order to facilitate the ongoing effectiveness and efficiency of business performance, and to be aware of the interests of organisation's stakeholders. Study programme graduates are able to work as quality managers, quality engineers, quality management system specialists at organizations and companies of various types and sizes in different branches of industry and areas of activity.</p>
Aim	<p>The aim of the study programme is to prepare Engineers in Process Quality Management - specialists in quality system engineering, quality assurance, conformity assessment and risk management, to develop students' understanding of professional ethics and socially responsible management, to broaden their vision, as well as form a basis for further studies to acquire a higher level of knowledge and competence.</p>
Tasks	<p>The general tasks of the study programme are as follows:</p> <ul style="list-style-type: none">- to ensure a competitive bachelor's level education corresponding to international standards in quality engineering and conformity assessment;- to provide students with a comprehensive knowledge, to develop special skills and competencies required in the labour market for quality managers or process quality engineers, to train students for practical work;- to ensure development and amendments to the content of the study programme, the study process and research work in line with the changes in the field of quality management and conformity assessment, international practice, science and didactic;- to develop students' interest in further professional development, further perfection of academic knowledge, as well as develop students' research skills and facilitate their application;- to stimulate students' interest in social processes, to enable them to develop into positive, modern, reliable, ethical and capable individuals, who can act independently and take autonomous decisions;- to encourage interaction between the academic staff and students in the development of research work and practical use of the research results in quality management and conformity assessment in various organisations, and promote international mobility and participation in projects.

Learning outcomes	<p>The graduates of the study programme:</p> <ul style="list-style-type: none"> - are able to develop and implement an organization's quality management system taking into account stakeholder interests, quality risks, and normative acts, standards and other requirements applicable to systems, products and processes; - are able to identify, evaluate and monitor process quality, use process quality assessment methods and tools appropriate to the organization's needs, analyse and interpret the received data; - are able to identify the factors and risks influencing the quality, perform quality measurements and identification and assessment of related risks; - are able to plan and implement a conformity assessment program and to organise and participate in the internal and external quality assessment process; - are able to plan the resources needed to ensure and develop the quality of systems, processes and products, determine the competence and authority of the personnel involved, manage quality development, risk prevention and mitigation activities; - are able to evaluate and improve organizational processes and their interaction, understand the key performance indicators of an organisation and assess the costs associated with quality loss; - are able to ensure compliance with applicable standards, normative acts and other requirements applicable to systems, processes and products, within the scope of their authority; - are able to carry out research according to the bachelor's level studies with added value in the field of quality management and/or conformity assessment, use information and communication technologies, analyse, interpret and present the results; - are able to work individually and in a team, continue professional development, act ethically and responsibly to avoid harming society and the environment.
Final/state examination procedure, assessment	<p>Study programme is concluded with the state examination, where the elaboration and defence of a bachelor's thesis in a public session of the State Examination Commission (SEC) is a constituent part of this examination. At the same time, the acquisition of key fundamental, theoretical and field-specific professional knowledge is tested. The state examination demonstrates students' ability:</p> <ul style="list-style-type: none"> - to find, summarise and analyse academic and professional literature and information (including literature in the English language); - to use appropriate research methods and information processing technologies in order to analyse and evaluate major activities and progress indicators, data on the quality of products, processes and systems; - to carry out independent or group research on a specific problem in quality or quality management and/or conformity assessment of products, processes and systems, which is topical and significant for the organisation; - to draw conclusions and to formulate appropriate recommendations; - to present the prepared recommendations and to defend their personal professional opinion. <p>The SEC consists of at least five members. The chair and at least half of the panel is composed of representatives of professional organisations or employers from the industry. Students' knowledge, skills and competence are assessed collegially by the SEC on a 10-grade scale.</p>
Description of the future employment	<p>Process quality engineers arrange the development of recommendations for the use of technical, technological and organisational systems and process management methods, measurements, evaluation, conformity assessment and improvement techniques. They are familiar with the classification of basic operations, support and management processes, process identification, process efficiency and effectiveness measurement principles and process characteristics. They know and are able to use quality management and development methods to foster continuous improvement of the efficiency of the organization and the quality of its products. They identify and assess quality risks, and prepare recommendations for risk mitigation and prevention measures. They design and manage the implementation of quality management systems, plan and carry out quality system audits. They ensure that the organisation's systems, processes and products meet customer requirements and needs without harming society or the environment. They are aware of the interests of the organisation's management, customers, owners and society, and manage and realise the implementation and development of quality management systems in accordance with the organisation's aims and development strategy. They perform their duties in compliance with industry-specific normative acts, standards and other requirements that apply to processes and products; encourage learning from the experience of competitors and other organisations, and understanding of good management.</p> <p>Study programme graduates are able to work as process quality engineers, quality engineers, quality management system specialists, work as self-employed persons or sole proprietors, work in public administration or commercial organisations etc.</p>
Special enrollment requirements	No.
Opportunity to continue studies	Master studies.

Courses

No	Code	Name	Credit points
A		Compulsory Study Courses	123.0
A1		General Education Study Courses	17.0
1	IV0761	Introduction to Studies	1.0
2	IV0759	Civil Protection	2.0
3	IV0441	Introduction to research	6.0
4	DA0055	Environment and Climate Roadmap	2.0
5	SD0003	Innovative Product Development and Entrepreneurship	6.0
A.2		Field-Specific Theoretical Basic and IT Study Courses	55.0
1	DE0003	Mathematics	13.0
2	DE0506	Mathematics (specialized course)	6.0
3	DA7230	Natural Science in Materials and Technologies	9.0
4	IV0152	Economics	6.0
5	IV0442	CAQ Computer Aided Quality Control	6.0
0	IV0305	Process Analysis and Control	3.0
1	IV0428	Process Management (study project)	3.0
2	IV0701	Information Technology and Business Data Analysis	3.0
3	IV0702	Business Intelligence Tools and Methods	3.0
4	IV0762	Business Data Processing Automation	3.0
A.3		Field-Specific Professional Study Courses	51.0
6	IV0117	Environmental Compatibility and Risk Analysis	5.0
7	IV0429	Market Surveillance	6.0
8	IV0438	Basics of Quality Metrics	3.0
9	IV0444	Conformity Assessment	6.0
10	IV0439	Conformity Assessment (study project)	3.0
11	IV0443	Quality Costs and Resource Analysis	6.0
12	IV0440	Quality audit	6.0
13	IV0698	Business and Labour Law	4.0
14	IV0433	Quality Management (study project)	3.0
15	IV0434	Quality Management	9.0
B		Compulsory Elective Study Courses	51.0
B1		Field-Specific Study Courses	39.0
			<i>24.0</i>
1	IV0437	Quality Improvement Methods	6.0
2	IV0435	Metrology and Industrial Measurements	6.0
3	IV0432	Standardization	3.0
4	IV0331	Principles of Finances	3.0
5	IV0201	Social Responsibility and Business Ethics	3.0
6	IV0430	Ergonomics and Work Psychology	3.0
7	IV0431	Working Environment Risk Prevention Methods	6.0
8	IV0165	Work Environment and Ergonomics	3.0
9	IV0485	Safety of Technological Processes	3.0
10	IV0767	Occupational Safety in the Company	3.0
		<i>Mechanical Engineering and Transport</i>	<i>15.0</i>
1	IV0153	Transport and Organization of Transportation	6.0
2	BM0400	LEAN manufacturing technologies	3.0
3	IV0161	Risks and Insurence in Transport	3.0
4	IV0149	Fundamentals of Logistics	3.0
5	IV0336	Supply Chain Management and Freight Forwarding	3.0
6	IV0164	Organisation of Traffic and Envinonment Protection	3.0
		<i>Civil Engineering</i>	<i>15.0</i>
1	IV0401	Practical Aspects of Construction and Basics of Planning	9.0
2	IV0410	Building Information Systems and Technologies	6.0
3	BM0387	Construction Technology and Safety	6.0
4	IV0101	Energy Efficiency in House and Building Management	5.0
5	IV0037	Innovations in Building Construction	4.0
B2		Humanities and Social Sciences Study Courses	6.0
1	IV0167	Business Management	3.0
2	IV0268	Intercultural Communication	3.0

3	IV0760	Personnel Management	3.0
4	IV0707	Personal and Professional Development	3.0
B6		Languages	6.0
1	DE0251	English	6.0
2	DE0247	German	6.0
C		Free Elective Study Courses	9.0
D		Practical Placement	39.0
1	IV0445	Internship	39.0
E		Final Examination	18.0
1	IV0436	Bachelor Thesis	18.0