COURSE (MODULE) DESCRIPTION

Course title	Code
QUALITY MANAGEMENT METHODS	

Staff	Department
Coordinator: assist. Darius RUŽELĖ **Other(s):**	Management Department, Faculty of Economics

Study cycle	Course type
Second	Compulsory

Form of implementation	Period of implementation	Language of instruction
Classroom	2th semester	English

Requirements for student	
Prerequisites: -	**Additional requirements (if any): -**

Number of ECTS credits	Student's workload	Contact hours	Individual work
5	136	24	112

Purpose of the subject and competences developed		
To develop knowledge, understanding and practical competencies applying methods of quality management		
Learning outcomes	**Teaching methods**	**Assessment methods**
Ability to apply quality management knowledge	Problem-based teaching, group discussion, study of video materials, practice-based tasks in classroom, individual assignment.	Performance during activities in classroom, individual assignment, written exam.
Ability to analyze information about quality		
Ability to apply quality management methods in practice		

Course themes	Contact / Individual work: time and assignments								
	Lectures	Tutorials	Seminars	Practical classes	Laboratory work	Practice	**Contact hours**	**Individual work**	**Assignments**
1. Introduction: Principles and methods of learning to learn. Quality management methods and their place in quality management. Evolution of quality management methods.	1		0				**1**	**4**	Reading of scientific literature by list of academic discussion questions.
2. Service quality: Service quality assurance methods. Complaints and conflict management. SERVQUAL, SERVPERF and other models for assessment of service quality.	2		1				**3**	**12**	

3. Product quality: Concept and methods of product quality assurance. Methods for product design and development. Product development models: "Waterfall", "Stage-Gate", "Prototype", "Spiral". Reliability Engineering. Failure modes and effects analysis FMEA. Benchmarking. Quality costing.	2		1				**3**	**12**	
4. Consumer needs research: Consumer visitation. Gemba walk. Brainstorming. Affinity diagram. Multi-pickup method (MPM). Consumer needs research using Quality function deployment (OFD) and the Kano's "attractive quality" model.	1		0				**1**	**4**	
5. Fundamentals of Lean management: Lean philosophy, principles and methodology. Lean management system in the context of mass production. Lean in service and manufacturing sectors. Target costing and Kaizen costing. Lean organizational culture. Lean culture deployment challenges. Lean change management. Problem-solving approach "A3".	2		1				**3**	**12**	Reading of scientific literature by list of academic discussion questions.
6. Lean "wastology" and waste elimination methods: arrangement 5S, U-line, management of work-in-progress Chaku-Chaku, "milk run", overall equipment efficiency OEE, total preventive maintenance TPM, equipment changeovers SMED, Spagetti diagram, FIFO inventory management, Obeya, Shojinka, Takotei-Mochi.	1		1				**2**	**8**	
7. Lean total involvement and teamwork: Policy deployment Hoshin Kanri, Quality Circles QC, employee proposals Kaizen Teian, everyday meetings Asaichi, obtaining approval Nemawashi, visual management, Kanban board, multi-functional teams, cross training, decision-making Ringi.	1		1				**2**	**8**	
8. Lean "just in time" (JIT): Value stream mapping VSM, inventory management Kanban, Pull management, Takt time, production-leveling Heijunka, supply in proper sequence JIS, SIPOC diagram, Genryo Seisan, supply chain management SCM, theory of constraints TOC.	2		1				**3**	**12**	
9. Lean quality incorporation methods (jap. Jidoka): 7 quality control tools (7QC), "5 Why", defect prevention Poka-Yoke, standardized work SW, incorporated quality Tsukurikomi, Andon board, stop line, autonomation, one-piece conveyance Ikko-Nagashi.	1		1				**2**	**8**	
10. Lean continuous improvement (jap. Kaizen) principles and methods: Improvement cycles PDCA, PDSS, and PDSA, Kaizen Teian, 3P, learning by practicing Jishuken, LAMDA cycle, horizontal deployment Yokoten, auditing Kamishibai, error recognition Hansei.	1		1				**2**	**8**	
11. Balanced Scorecard (BSC): Measurements and Management. Structure of Balanced Scorecard. Strategic performance indicators. Strategic management using BSC.	1		0				**1**	**4**	

12. Six Sigma methodology and techniques: Six Sigma structure. Six Sigma strategic objectives. Six Sigma methods. DMAIC and other cycles. Review of Six Sigma application.	1		0				**1**	**4**	
Individual assignment: Preparation and presentation of the individual assignment, defense and discussions with the lecturer.							**-**	**6**	
Exam: Preparation for the exam. Examination. Discussions and actual questions after the exam (questions about the examination, discussion about of learning process efficiency, about subject content and about practical benefits of the course material).							**-**	**8**	
Iš viso	16		8				**24**	**112**	

Assessment strategy	Share in %	Time of assessment	Assessment criteria
Work activity at classroom during lectures and seminars	20	During the course	**Student' activity at classroom during lectures and seminars, carrying out practical tasks and engaging in discussions:** o 2 points - actively participates in discussions, represents a reasoned approach identifying and formulating problems, provides critical evaluations, and presents detailed and reasoned responses. o 1 point - takes part in the discussions, is able partially response to the questions. o 0 points – indifferently participates in discussions.
Presentation of the individual assignment (task)	20	Scheduled during the course	o Evaluation criteria of the individual assignment. **- Preparation of the assignment, disclosure of the subject, and the validity of findings:** o 1 point - theme revealed in full, structure of the work is relevant and logical, consistent and comprehensive analysis is carried out, findings are genuine and justified; o 0.5 points - topic isn't fully disclosed, structure lacks consistency, analysis isn't complete, findings are superficial; o 0 points - theme is not fully disclosed or disclosed superficially/formally, findings are not presented. **- Presentation and discussion:** o 1 point - presentation is expressive, emotional, audience listens actively, the ability to answer questions is obvious; o 0.5 points - the audience is not involved and listens passively, answers to questions are incomplete; o 0 points - the audience is not involved, the discussion doesn't take place.
Exam (written)	60	At the end of the course (during the exam)	**Student in allowed to take the exam only after delivering the presentation of the individual assignment at the classroom.** Exam consists of 12 open and closed questions. Relevance and comprehensiveness of answers is evaluated for open questions, and response accuracy of answers is evaluated for closed questions. o 6 points - excellent knowledge, 11-12 correct answers. o 5 points - very good knowledge, 9-10 correct answers. o 4 points - good knowledge, minor errors, 7-8 correct answers. o 3 points - average knowledge, minor mistakes, 5-6 correct answers. o 2 points - poor knowledge, some mistakes, 3-4 correct answers. o 1 point - poor knowledge, fundamental errors, 2-3 correct answers. o 0 points - requirements not met, 0-1 correct answers.

Author	Published in	Title	Issue No. or Volume	Publishing house or Internet site
Required reading				
Mudie, P.; Pirrie, A.	2006	Services marketing management; 3th Ed.		http://englishplaza.vn/flexpaper/pdf/servive-marketing-management_1406046259.pdf
Nitin, S.; Deshmukh, S.G.; Vrat, P.	2005	Service quality models: a review.		http://www.emeraldinsight.com/doi/pdfplus/10.1108/02656710510625211
Pakdil, F.; Leonard, K.M.	2015	The effect of organizational culture on implementing and sustaining Lean processes.	*Journal of Manufacturing Technology Management,* 26 (5), 725 - 743	http://www.emeraldinsight.com/doi/pdfplus/10.1108/JMTM-08-2013-0112
Hines, P.; Holweg, M.; Rich, N.	2004	Learning to evolve: A review of contemporary lean thinking.	*International Journal of Operations & Production Management*, 24 (10), 994-101.	http://www.emeraldinsight.com/doi/pdfplus/10.1108/01443570410558049
Fujimoto, T.	1999	The evolution of a manufacturing system at Toyota.		New York: Oxford University Press.
Supplementary reading				
Kamiske, G.F.	2013	Handbuch QM-Methoden.		München: Carl Hanser Verlag.
Ghobadian, A.; Speller, S.; Jones, M.	1994	Service Quality.	*International Journal of Quality & Reliability Management,* 11 (9), 43 - 66	http://www.emeraldinsight.com/doi/pdfplus/10.1108/02656719410074297
Stentoft J.; Per Vagn, A.; De Haas, H.F.	2011	Service supply chain management: A survey of lean application in the municipal sector.	*International Journal of Physical Distribution & Logistics Management,* 41 (3), 277 – 295.	http://www.emeraldinsight.com/doi/pdfplus/10.1108/09600031111123796
Basu, R.	2009	Implementing Six Sigma and Lean: a practical guide to tools and techniques.		Oxford: Elsevier Limited.
Hirano, H	2009	JIT Implementation Manual; Vol. 1-6.		Boca Raton: CRC Press.