SUBJECT DATASHEET

QUALITY MANAGEMENT

BMEGT20MN03

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
QUALITY MANAGEMENT

ID (subject code) BMEGT20MN03

Type of subject
Contact lessons

Course types and lessons

Type	*Lessons*
Lecture	4
Practice	0
Laboratory	0

Type of assessment
exam grade

Number of credits
5

Subject Coordinator

Name	*Position*	*Contact details*
Erdei János	senior lecturer	erdei.janos@gtk.bme.hu

Educational organisational unit for the subject
Department of Management and Business Economics

Subject website
https://edu.gtk.bme.hu

Language of the subject
magyar - HU; angol - ENG

Curricular role of the subject, recommended number of terms
Programme: **Management and Leadership MSc (in English) from 2019/20/Term 1**
Subject Role: **Compulsory**
Recommended semester: **2**

Programme: **Master's programme in Management and Leadership from 2019/20/Term 1 (Autumn term start)**
Subject Role: **Compulsory**
Recommended semester: **2**

Programme: **Master's programme in Management and Leadership from 2020/21/Term 2 (Spring term start)**
Subject Role: **Compulsory**
Recommended semester: **1**

Programme: **Engineering Manager Msc from 2017/18//term 2 (Spring term start)**
Subject Role: **Compulsory**
Recommended semester: **1**

Programme: **Engineering Manager Msc from 2018/19/Term 1 (Autumn term start)**
Subject Role: **Compulsory**
Recommended semester: **2**

Programme: **MSc in Management and Leadership**
Subject Role: **Compulsory**
Recommended semester: **2**

Programme: **Engineering Manager Msc from 2016/17/Term 1 (Autumn term start)**
Subject Role: **Compulsory**
Recommended semester: **2**

Programme: **Engineering Manager Msc from 2016/17/Term 1 (Spring term start)**
Subject Role: **Compulsory**
Recommended semester: **1**

Direct prerequisites

Strong	None
Weak	None
Parallel	None
Exclusion	None

Validity of the Subject Description

Approved by the Faculty Board of Faculty of Economic and Social Sciences, Decree No: 13th decision on the 580.059/2/2020 registration number . Valid from: 29.01.2020.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The aim of the subject is to introduce the role of quality management in the successful operation of organizations and to help students understand the competitive nature of quality management deeper. It demonstrates the main characteristics of the quality management systems of the various productive and service sectors. The subject introduces some of the most popular methods and tools of quality management and the basics of service quality models.

Academic results

Knowledge

1. Competitive nature of quality management.
2. The role of quality management in the successful operation of organizations.
3. Some of the most popular quality management models, methods and tools.

Skills

1. Capability of following and understanding the state of the art of quality management.
2. Capability of communicating in a professional manner on quality management topics.
3. Capability of participating professionally in solving quality management problems, preparing and/or making decisions in connection.

Attitude

1. An open-minded approach of organizational development in quality management point of view.
2. An open-minded approach of new results of quality management.
3. An ability to seek the collaboration in multidisciplinary teamwork.

Independence and responsibility

1. An ability to perform independent tasks in analyzing quality management problems.
2. An ability to perform independent tasks in preparing and/or making quality management decisions.
3. An ability to take responsibility for quality management decisions.

Teaching methodology

Lectures, analysis of theoretical models, exercises, and case studies individually or in teams.

Materials supporting learning

- Topár J. – Surman V. Minőségmenedzsment Oktatási segédanyaga Műszaki menedzser és a Vezetés és szervezés mesterszakos hallgatók számára (2019-megjelenés alatt)
- Egyéb, az oktatók által kiadott oktatási segédletek (https://edu.gtk.bme.hu)
- Defeo, J.A. (2017) Juran's Quality Handbook – The complete guide to performance excellence, 7th ed., McGraw-Hill Education.
- Evans, J.R. – Lindsay, W.M. (2017) Managing for Quality and Performance Excellence, 10th ed., Cengage Learning.
- George, M.L. – Rowlands, D. – Price, M. – Maxey, J. (2005) The Lean Six Sigma Pocket Toolbook – A Quick Reference Guide to Nearly 100 Tools for Improving Process Quality, Speed, and Complexity, George Group.
- Gillett, J. – Simpson, P. – Clarke, S. (2015) Implementing ISO 9001:2015, Infinite Ideas Limited.
- Goetsch, D.L. – Davis, S.B. (2016) Quality Management for Organizational Excellence – Introduction to Total Quality, 8th ed., Pearson.
- Kemény S. – Papp L. – Deák A. (1999) Statisztikai minőség- (megfelelőség-) szabályozás. Műszaki Könyvkiadó–Magyar Minő-ség Társaság, Budapest.
- Kiran, D.R. (2017) Total Quality Management key concepts and case studies, Elsevier.
- Kövesi J. – Topár J. (szerk.) (2006): Minőségmenedzsment alapjai, Typotex Kiadó, Budapest
- MSZ EN ISO 9001:2015 Minőségirányítási Rendszerek - Követelmények MSZT 2015.
- Liker, J.K. – Ross, K. (2017) The Toyota Way to Service Excellence – Lean transformation in service organizations, McGraw-Hill Education.
- Oakland, J.S. (2014) Total Qualiy Management and Operational Excellence – Text with cases, Rout-ledge.
- Sower, V.E. (2011) Essentials of Quality with cases and experimental exercises, Wiley.
- Tenner A. R. – DeToro I. J. (2001): Teljes körű minőségmenedzsment TQM 3. kiadás, Műszaki Könyv-kiadó, Budapest
- Topár J. (szerk.): A műszaki menedzsment aktuális kérdései Műszaki Kiadó Budapest, 2012.
- Topár J (2001): A minőségmenedzsment -rendszerek fejlődésének néhány jellemzője a hazai vállalkozásoknál. Harvard Business Manager 4/2001 pp.50-57

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

Assessment of the learning outcomes described under point 2.2. is based on a written final exam.

Performance assessment methods

A. Detailed description of assessments during the term: - B. Assessment of the exam: A written exam must be passed: all the theoretical topics and the connected practical applicability discussed during the course must be known. A maximum of 100 points can be received for the successful solution of the T-F statements and the shorter-longer essay questions. The exam takes 90 minutes, the minimum requirement
is the 50 %.

Percentage of performance assessments, conducted during the study period, within the rating

- **written exam**: 100%
- **total**: 100%

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

From tasks, exercises and case studies (during the lecture or as a homework) the maximum of 25 plus points can be achieved. From the 25 points, collecting the minimum of 5 points is the requirement in order to be eligible for the final exam. These 5 points are not going to be counted as part of the exam, but the other maximum of 20 points is going to be added to the result of the exam after fulfilling
the minimum of 50 % on it. These tasks, exercises and case studies are cannot be replaced.

Issuing grades

Excellent	94
Very good	87–94
Good	75–86
Satisfactory	63–74
Pass	50–62
Fail	50

Retake and late completion

1) Based on the Code of Studies

Coursework required for the completion of the subject

participation in contact hours	24×2=48
preparation for contact hours	24×2=12
preparation for the exam	54
total	150

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by Emma Lógó, PhD, Vice Dean for Education. Date: 20 Jan 2020
Valid from spring semester 2019/20 (before: Consulted with the Faculty Student Representative Committee, approved by Emma Lógó, PhD, Vice Dean for Educa-tion Date:19 May 2019 Valid from fall semester 2019/20)

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

The learning outcomes of 2.2 can be achieved by studying the following areas and topics

1 Introduction. Basics of quality management.
2 The role and connected experiences of quality management systems in production and service sectors.
3 Process management and process maturity models, Six Sigma, Lean management.
4 Basics and steps of quality planning.
5 Supplier quality assurance, choosing and evaluating suppliers, first sampling (PPAP).
6 Quality costs.
7 Organizational self-evaluation, award models, CAF
8 Theoretical background and categorization of quality management methods and tools, data and information (analyses) on quality.
9 The concept, improvement and role of Benchmarking.
10 Processes of process improvement models, PDCA, DMAIC.
11 Idea collecting and brainstorming methods.
12 Process mapping and describing methods.
13 Problem (defect) analyzing methods.
14 Process control methods.
15 Other quality management tools.
16 Service quality models.

Additional lecturers

Dr. Topár József	c. egyetemi docens	topar.jozsef@gtk.bme.hu
Surman Vivien	egyetemi tanársegéd	surman.vivien@gtk.bme.hu
Benedek Petra	egyetemi tanársegéd	benedek.petra@gtk.bme.hu

Approval and validity of subject requirements

Part I-III of the Subject Form is to be approved by the Head of Department of Management and Business Economics named under 1.8.