SYLLABUS [1]

1. Information about the program

1.1 Higher education institution	Politehnica University Timisoara
1.2 Faculty[2] / Department [3]	Management in Production and Transportation / Management
1.3 Chair	—
1.4 Field of study (name/code[4])	Engineering and Management / 207010
1.5 Study cycle	Master
1.6 Study program (name/code/qualification)	Quality and Competitiveness Engineering and Management / 201710

2. Information about discipline

2.1 Name of discipline			Costs of Quality and Economic Analysis				
2.2 Coordinator (holder) of course activities			Assoc.prof.PhD Matei TAMASILA				
2.3 Coordinator (holder) of applied activities [5]			Assist.prof.PhD Serban MICLEA				
2.4 Year of study [6]	1	**2.5** Semester	2	**2.6** Type of evaluation	E	**2.7** Type of discipline	DA

3. Total estimated time (direct activities (fully assisted), partially assisted activities and unassisted activities [7])

3.1 Number of hours fully assisted/week	3 ,of which:	**3.2** course	2	**3.3** seminar/laboratory/project			1
3.1* Total number of hours fully assisted/sem.	42 ,of which:	**3.2*** course	28	**3.3*** seminar/laboratory/project			14
3.4 Number of hours partially assisted/week	,of which:	**3.5** project, research		**3.6** training		**3.7** hours designing M.A. dizertation	
3.4* Number of hours pasrtially assisted/ semester	,of which:	**3.5*** project of research		**3.6*** training		**3.7*** hours designing M.A. dizertation	
3.8 Number of hours of unassisted activities/ week	2.5 ,of which:	Additional documentation in the library, on specialized electronic platforms, and on the field					1
		Study using a manual, course materials, bibliography and lecture notes					0.5
		Preparation of seminars/ laboratories, homework, assignments, portfolios, and essays					1
3.8* Total number of hours of unasssited asctivities/ semester	35 ,of which:	Additional documentation in the library, on specialized electronic platforms, and on the field					14
		Study using a manual, course materials, bibliography and lecture notes					7
		Preparation of seminars/ laboratories, homework, assignments, portfolios, and essays					14
3.9 Total hrs./week [8]	5.5						
3.9* Total hrs./semester	77						
3.10 No. of credits	5						

4. Prerequisites (where applicable)

4.1 Curriculum	• Microeconomics, Accounting, Engineering Economy
4.2 Competencies	•

[1] The form corresponds to the Syllabus promoted by OMECTS 5703/18.12.2011 (Annex 3), updated based on the Specific Standards ARACIS of December 2016.
[2] The name of the faculty which manages the educational curriculum to which the discipline belongs
[3] The name of the department entrusted with the discipline, and to which the course coordinator/holder belongs.
[4] Fill in the code provided in HG no. 376/18.05.2016 or in HG similars annually updated.
[5] The applied activities refer to: seminar (S) / laboratory (L) / project (P) / practice/training (Pr).
[6] The year of study to which the discipline is provided in the curriculum .
[7] Within UPT, the number of hours from 3.1*, 3.2*,…,3.9* are obtained by multipling by 14 (weeks) the number of hours from 3.1, 3.2,…, 3.9. The information from 3.1, 3.4 și 3.8 are keys of verification used by ARACIS under the form: (3.1)+(3.4) ≥ 28 hrs./week and (3.9) ≤ 40 hrs./week.
[8] The total number of hours/week is obtained by summing up the number of hours from 3.1, 3.4 şi 3.8.

5. Conditions (where applicable)

5.1 of the course	• Classroom, projector, laptop, whiteboard
5.2 to conduct practical activities	• Classroom, Whiteboard

6. Specific competencies acquired through this discipline

Specific competencies	• Understanding the concepts and fundamental principles specific to the field • Using the tools, methods and models specific to the discipline to optimize the functioning of the economical engineering systems
Professional competencies ascribed to the specific competencies	• C1 Correct and appropriate application of the adequate theoretical and practical notions of the domain and specialization knowledge. • C3 Addressing engineering and managerial issues specific to quality and competitiveness in a creative, efficient and effective way
Transversal competencies ascribed to the specific competencies	• CT1 Development of analytical, synthetic, comparative and critical thinking, adaptability and communication ability in different situations and conditions. • CT3 Identifying opportunities for continuous training and efficient use, for personal and professional development, of information and training sources, both in Romanian and in an international language.

7. Objectives of the discipline (based on the grid of specific competemcies acquired)

7.1 The general objective of the discipline	• To synthesizing and present to the students the concepts, tools, methods and -specific models in order to form a pragmatic economic thinking
7.2 Specific objectives	• Capacity building and skill knowledge and understanding of economic phenomena and issues; • Assessing economic and financial situation of businesses and identifying appropriate measures for its improvement; • Developing the ability to analyze the content of financial statements in view of managerial decision making •

8. Content

8.1 Course	Number of hours	Teaching methods
1.Cost concepts and the economic environment: general aspects, cost terminology, the general economic environment, cost driven design optimization, the meaning and measurement of cost, functions of cost	6	Oral presentation, examples, interactive discussions
2.Quality cost concepts: evolution of quality cost, the economics of quality cost, goal of quality cost system, hidden cost of quality, quality loss function	4	
3.Quality cost system definitions: quality cost categories, quality cost elements, quality cost bases, other considerations pertaining to bases, trend analysis and the improvement process	4	
4.Quality cost program implementation: how to get started, the management presentation, quality cost education, internal quality cost procedure, quality cost collection and analysis	4	
5.Use of quality costs: quality improvement and quality costs, quality	4	

costs and the strategic business plan, application of quality costs to supplier control etc		
6.Quality improvement and reducing of quality costs: quality cost improvement philosophy, quality costs analysis, quality costs and the profit center, finding the problem areas, team-based problem solving, reducing the suppliers quality costs	6	

Bibliography [9] 1.D.C.Wood, Principles of Quality Costs, fourth edition , Editor ASQ Quality Press, Published 2013, USA.
2. L.T.Blank, A. J.Tarquin, Basics of Engineering Economy, Editor McGraw-Hill Education, Published 2007, USA
3. E.P.Degarmo, et al.., Engineering Economy; Editor Prentice Hall; Published 2002, USA
4. J.Campanella, Principles of Quality Costs. Principles, Implementations and Use, third edition, Editor ASQC Milwaukee, Published 1999, USA

8.2 Applied activities [10]	Number of hours	Teaching methods
1.Costs analysis system: fixed, variable and incremental costs; recurring and nonrecurring costs; direct, indirect and overhead costs; standard costs.	4	Exercises, examples, practical case study
2.Quality costs analysis: quality cost categories(prevention costs, appraisal costs, internal costs, external costs), quality cost elements, quality cost bases.	5	
3.Cost quality models : P-A-F; Crosby; ABC, Process cost; Opportunity or intangible costs etc	5	

Bibliography [11] 1.C.Wood, Principles of Quality Costs, fourth edition , Editor ASQ Quality Press, Published 2013, USA.
2. L.T.Blank, A. J.Tarquin, Basics of Engineering Economy, Editor McGraw-Hill Education, Published 2007, USA
3. E.P.Degarmo, et al.., Engineering Economy; Editor Prentice Hall; Published 2002, USA
4. J.Campanella, Principles of Quality Costs. Principles, Implementations and Use, third edition, Editor ASQC Milwaukee, Published 1999, USA .

9. Coroboration of the content of the discipline with the expectations of the main representatives of the epistemic community, professional associations and employers in the field afferent to the program

- Maintaining regular contacts with business in particular by carrying out applied research in firms annually through elaborate the graduation projects.

[9] At least one title must belong to the department staff teaching the discipline, and at least one title must refer to a relevant work for the discipline, a national and international work that can be found in the UPT Library.
[10] The types of applied activities are those mentioned in 5. If the discipline containes more types of applied activities then they are marked, consecutively, in the table below. The type of activity will be marked distinctively under the form: „Seminar:", „Laboratory:", „Project:" and/or „Practice/Training:".
[11] At least one title must belong to the staff teaching the discipline.

10. Evaluation

Type of activity	**10.1** Evaluation criteria [12]	**10.2** Evaluation methods	**10.3** Share of the final grade
10.4 Course	Knowledge of the concepts, tools, methods and subject-specific models.	Written exam, composed of four theoretical subjects (2 hours).	50%
10.5 Applied activities	**S:**		
	L:		
	P: The ability to use specific methods, specific models and presentation of proposed solutions	Oral presentation/support of the proposed solutions/findings/conclusions	50%
	Pr: .	.	
	Tc-R[13]:		
10.6 Minimum performance standard (minimum amount of knowledge necessary to pass the discipline and the way in which this knowledge is verified [14]			
• The correct usage of discussed concepts and solving specific problems. • The minimum amount of knowedge necessary is verified through results obtained at written exam and project presentation.			

Date of completion	**Course coordinator (signature)**	**Coordinator of applied activities (signature)**
	……	……
Head of Department (signature)	**Date of approval in the Faculty Council [15]**	**Dean (signature)**
……		……

[12] The Syllabus must contain the evaluation method of the discipline, specifying the criteria, the metods and the forms of evaluation, as well as mentioning the share attached to these within the final mark. The evaluation criteria msut correspond to all activities stipulated in the curriculum (course, seminar, laboratory, project), as well as to the methods of continuous assessment (homework, essays etc.)

[13] Tc-R= Homework-Reports

[14] For this point turn to "Ghidului de completare a Fişei disciplinei" found at: http://univagora.ro/m/filer_public/2012/10/21/ghid_de_completare_fisa_disciplinei.pdf

[15] The approval is preceeded by discussing the study program's board's point of view with redgards to the syllabus.