

MM 462 Quality Control				DEPARTMENT of MECHANICAL ENGINEERING					
Semester	Methods of Education							Credits	
	Lecture	Recit.	Lab.	Project /Field Study	Homework	Other	Total	Credit	ECTS Credit
8	42	0	-			33	75	3	3.0
Language	Turkish								
Compulsory / Elective	Elective								
Prerequisites	None								
Course Contents	Basic terminology, scope and fields of application. Interrelations among dimensions, metrology and manufacturing processes. Destructive and nondestructive testing. Quality costs. Probability and statistical quality control. Control charts method. Acceptance sampling and sample size. Product reliability.								
Course Objectives	The aim of this course is to teach the students the following topics so that they can learn the importance of producing standard,economic and quality goods and services in order to be successful under the conditions of free markets' economy and spherical competition.								
Learning Outcomes and Competences	The students should be able to: 1.Appreciate the importance of producing standard,economic,and quality goods and services to withstand the conditions of free markets' economy and spherical compition. 2.Criticise the relations between standard design,production,quality and economy. 3.Believe that in order to produce quality goods and services it is necessary to build a good quality control system first. 4.Use X-R or X-S charts and required acceptance sampling plans and procedures when necessary for economy.								
Textbook and /or Reference	Akkurt, M., "Kalite Kontrol, Excel Destekli", Birsen Yayınevi, ISBN 975-511-321-5. Chua, R.C.H., DeFeo, J.A., "Juran's Quality Planning and Analysis" 5th ed., McGraw-Hill, 2007. Montgomery, D.C., "Introduction to Statistical Quality Control" 2nd ed., John Wiley, 1991. Evans, J.R., Lindsay, W.M., "The Management and Control of Quality", 7th ed., Thomson Higher Education, 2008. TS EN ISO 9000, "Kalite Yönetim Sistemleri-Temel Esaslar, Terimler ve Tarifler", TSE, Mayıs 2007. TS EN ISO 9001:2000, "Kalite Yönetim Sistemleri-Şartlar", TSE, Kasım 2001. TS EN ISO 9004, "Kalite Yönetim Sistemleri-Performans İyileştirmeleri İçin Kılavuz", TSE, Nisan 2001.								
Assessment Criteria						If any, mark as (x)		Percentage (%)	
	Midterm Exams					X		60	
	Quizzes								
	Homeworks								
	Projects								
	Term Paper								
	Laboratory Work								
	Other								
Final Exam					X		40		
Instructors	Assoc.Prof. Ibrahim USLAN								
Week	Subject								
1	Definitions of some basic quality control terms.								
2	Objectives,methods,and scope of quality control.								
3	Some principles and techniques of quality control.								
4	Statistical quality control.								
5	Related statistical terms and techniques (FIRST MID-TERM EXAMINATION).								
6	Frequency distributions, X-R and X-S control charts.								
7	P and C control charts.								
8	Process capability.								
9	Acceptance sampling.								
10	Metrology,tolerances,and production.								
11	Product reliability.								
12	Quality costs (SECOND MID-TERM EXAMINATION).								
13	Organization and management of quality control.								
14	Quality assurance system and the ISO 9000 Family of Iternational Standards.								