T.C. ESKİŞEHİR OSMANGAZİ UNIVERSITY
ENGINEERING AND ARCHITECTURE FACULTY
MECHANICAL ENGINEERING DEPARTMENT

COURSE INFORMATION FORM

SEMESTER	Spring

COURSE CODE	151814236	COURSE NAME	MANUFACTURING TECHNOLOGY

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
6	3	0	0	3	5	COMPULSORY (X) ELECTIVE ( )	Turkish

COURSE CATAGORY			
Basic Science	Basic Engineering	Mechanical Engineering Subjects [if it contains considerable design, mark with (√)]	Social Science
		(X)	

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	Mid-Term	1	50
	Quiz		
	Homework		
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	50

PREREQUIEITE(S)	
COURSE DESCRIPTION	Basic manufacturing tecniques like solidification, particle processing, forming and joining and similar topics.
COURSE OBJECTIVES	At the end of this course students will understand production methods and gain ability to choose, use and develop manufacturing methods for specific applications .
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Through this course, students learn manufacturing and applications. Students will learn.how to produce a machine part by using manufacturing methods and selection of method for a specific application.
COURSE OUTCOMES	Selection of a manufacturing method for a specific application. Desingin and develop a manufacturing process of a machine or machine part by the manner of desired requirements (cost, time, workmanship, ...) Developing professional skills to solve technical problems. Applying the knowledge of basic sciences (mathematics, physics, chemistry) to manufacturing applications. Identify, formulate, and solve capability of related porblems. Gaining the ability to collect and analyze required data for related applications.
TEXTBOOK	1. Modern imalatın prensipleri, M.P. Groover, 2015, Nobel Yayıncılık 2. Manufacturing methods books.
OTHER REFERENCES	1.ERSÜMER,A., UZUNOVA.T., Demir Döküm, İ.T.Ü. Makine Fakültesi, İstanbul, 1994
TOOLS AND EQUIPMENTS REQUIRED	Computer, lecture notes, books, projectors

COURSE SYLLABUS	
WEEK	**TOPICS**
1	Information about the course. Introduction and overview of manufacturing
2	The mechanical properties of materials and engineering materials
3	Solidification Processes - Metal Casting
4	Solidification Processes - Glass Processing and Forming of Plastics
5	Particulate Processing Methods- Powder Metallurgy
6	Plastic Forming and Sheet Metal Forming
7	Plastic Forming and Sheet Metal Forming
8	Midterm Exam
9	Midterm Exam
10	Plastic Forming and Sheet Metal Forming
11	Surface Processing Operations and Surface Treatment Methods
12	Joining and Assembly Processes - Welding
13	Joining and Assembly Processes - Welding
14	Joining and Assembly Processes - Welding and other methods
15,16	Final Exam

NO	PROGRAM OUTCOMES	3	2	1
1	Sufficient knowledge of engineering subjects related with mathematics, science and Mechanical engineering; an ability to apply theoretical and practical knowledge on solving and modeling of Mechanical engineering problems.	[ ]	[X]	[ ]
2	Ability to determine, define, formulate and solve complex Mechanical engineering problems; for that purpose an ability to select and use convenient analytical and experimental methods.	[X]	[ ]	[ ]
3	Ability to design a complex system, a component and/or an engineering process under real life constrains or conditions, defined by environmental, economical and political problems; for that purpose an ability to apply modern design methods.	[ ]	[ ]	[X]
4	Ability to develop, select and use modern methods and tools required for Mechanical engineering applications; ability to effective use of information technologies.	[X]	[ ]	[ ]
5	In order to investigate Mechanical engineering problems; ability to set up and conduct experiments and ability to analyze and interpretation of experimental results.	[ ]	[ ]	[X]
6	Ability to work effectively in inner or multi-disciplinary teams; proficiency of interdependence.	[ ]	[X]	[ ]
7	Ability to communicate in written and oral forms in Turkish/English; proficiency at least one foreign language.	[ ]	[ ]	[X]
8	Awareness of life-long learning; ability to reach information; follow developments in science and technology and continuous self-improvement.	[ ]	[X]	[ ]
9	Understanding of professional and ethical issues and taking responsibility	[ ]	[X]	[ ]
10	Awareness of project, risk and change management; awareness of entrepreneurship, innovativeness and sustainable development.	[ ]	[ ]	[X]
11	Knowledge of actual problems and effects of engineering applications on health, environment and security in global and social scale; an awareness of juridical results of engineering solutions.	[ ]	[ ]	[X]
1:None. **2**:Partially contribution. **3**: Completely contribution.				

Prepared by: Assoc. Prof. Dr. Mustafa ULUTAN **Date:** 13/11/2017

Assist. Prof. Dr. Koray KILIÇAY

Signature(s):