ESOGÜ Mechanical Engineering Department
COURSE INFORMATION FORM

SEMESTER	Fall

COURSE CODE	151817474	COURSE NAME	Lubrication Systems

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
7	3	0	0	3	5	COMPULSORY ( ) ELECTIVE (X)	Turkish

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

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	1st Mid-Term	1	20
	2nd Mid-Term	1	30
	Quiz		
	Homework		
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	50

PREREQUIEITE(S)	Machine elements and fluid mechanics courses must be taken
COURSE DESCRIPTION	Friction; types of friction; lubricants; greases; hydrostatic and hydrodynamic lubricants
COURSE OBJECTIVES	To help the design of machine elements
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	To help the maintenance engineering
COURSE OUTCOMES	1. To make the choice of oils and lubricants 2. Determines how the machine elements lubricate 3. Determine the lubrication systems 4.Determine the friction type 5. To design the hydrostatic lubrication 6. To design the hydrodynamic lubrication
TEXTBOOK	Lubrication Theory
OTHER REFERENCES	
TOOLS AND EQUIPMENTS REQUIRED	

COURSE SYLLABUS	
WEEK	**TOPICS**
1	Machine elements and fluid mechanics courses must be taken
2	Friction; types of friction; lubricants; greases; hydrostatic and hydrodynamic lubricants
3	To help the design of machine elements
4	To help the maintenance engineering
5	1. To make the choice of oils and lubricants 2. Determines how the machine elements lubricate 3. Determine the lubrication systems 4.Determine the friction type 5. To design the hydrostatic lubrication 6. To design the hydrodynamic lubrication
6	Mid-Term Examination 1
7	Fluid lubricants
8	Mineral and synthetic lubricants
9	Gas lubricants
10	Greases
11	Mid-Term Examination 2
12	Types of lubrication
13	Hydrostatic lubrication
14	Hydrodynamic lubrication
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 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: **Yrd. Doç. Dr. İrfan Üreyen** **Date:**

Signature(s):