ESOGÜ Mechanical Engineering Department
COURSE INFORMATION FORM

SEMESTER	

COURSE CODE	151818693	COURSE NAME	Fire Security

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Labratory	Credit	ECTS	TYPE	LANGUAGE
8	3			3	5	COMPULSORY ( ) ELECTIVE (x)	Turkish

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

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	1st Mid-Term	1	40
	2nd Mid-Term		
	Quiz		
	Homework		
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	60

PREREQUIEITE(S)	
COURSE DESCRIPTION	Combustion and fire concepts. Fire triangle. Types of fire and its development. Fire load. Extinguishing effects and extinguishing agents. Structural fire safety. Flammability classes of materials. Structure of smoke. Smoke control methods. Stair pressurization. Fixed pipe hose systems. Hydrant system. Automatic sprinkler systems. Fire pumps and pressure zoning. Foam extinguishing systems. Gas extinguishing systems.
COURSE OBJECTIVES	Having knowledge about fire safety, fire types and fire load detection, knowledge of extinguishing agents, pressure zoning, knowledge of extinguishing systems.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Have experience with fire equipment
COURSE OUTCOMES	Fire installation design skills in buildings
TEXTBOOK	Prof. Dr. Abdurrahman Kılıç lecture notes
OTHER REFERENCES	Yangın Söndürme Tesisatı Proje Hazırlama Esasları, MMO yayını
TOOLS AND EQUIPMENTS REQUIRED	

COURSE SYLLABUS	
WEEK	**TOPICS**
1	Extinguishing Effect and Substances
2	Structural Fire Safety
3	Detection Warning Systems
4	Water Quenching Pressure Losses
5	Fire Cabinets Hydrants
6	Sprinkler Systems
7	Fire Pumps
8	Midterm
9	Termination System Zoning
10	Foam Suppression Systems
11	Gas Extinguishing Systems
12	Clean Gas Extinction Systems
13	Smoke Control
14	Ladder Pressurization
15,16	Semester final exam

NO	PROGRAM OUTCOMES	3	2	1
1	Sufficient knowledge of engineering subjects related with mathematics, science and own branch; an ability to apply theoretical and practical knowledge on solving and modeling of engineering problems.		x	
2	Ability to determine, define, formulate and solve complex 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 engineering applications; ability to effective use of information technologies.		x	
5	In order to investigate 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.				

Instructor(s): Doç. Dr. Nihal Uğurlubilek

Signature: **Date:**

15.12.2021