ESOGU CIVIL ENGINEERING DEPARTMENT

COURSE INFORMATION FORM

Course Name	Course Code
ENGINEERING RESEARCH I	**151417668**

Semester	Number of Course Hours per Week		ECTS
	Theory	Practice	
7	3	0	4

Course Category (Credit)				
Basic Sciences	**Engineering Sciences**	**Design**	**General Education**	**Social**
	2	2		

Course Language	Course Level	Course Type
Turkish	Undergraduate	Elective

Prerequisite(s) if any	
Objectives of the Course	Establishing the infrastructure of the project that the student will do in the Engineering Research course to be taken in the 8th semester under the supervision of a faculty member
Short Course Content	To make theoretical studies on the project subject of the Engineering Research course that the student will take in the following semester, to choose the study method, to make the necessary preliminary preparations, to prepare a report.

Learning Outcomes of the Course	Contributed PO(s)	Teaching Methods *	Measuring Methods **
1 Recognizes the importance of the work area.	8,9,10,11	1,2,5,6,8,13	A,D,E,F,K
2 Examines, collects, explains and discusses the literature related to the field of study.	2,3,5,7,9	8,11,12,15	A,D,E,F,K
3 Uses and applies previous knowledge for the work area.	1,2,8	1,2,5,6,8,11,12,14,15	A,D,E
4 Completes the missing information to make the project	8,9,10,11	2,5,8,12,13,14	A,D,F,K
5 Combines, interprets, evaluates, discusses and finalizes the results of the study, presents and defends them in writing.	5,6,7,8,9,10,11	2,4,5,6,8,11,12,15	A,D,E,F,G,K
6			
7			
8			

***Teaching Methods** **1:**Expression, **2:**Discussion, **3:**Experiment, **4:**Simulation, **5:**Question-Answer, **6:**Tutorial, **7:**Observation, **8:**Case Study, **9:**Technical Visit, **10:**Trouble/Problem Solving, **11:**Induvidual Work, **12:**Team/Group Work, **13:**Brain Storm, **14:**Project Design / Management, **15:**Report Preparation and/or Presentation

****Measuring Methods** **A:**Exam, **B:**Quiz, **C:**Oral Exam, **D:**Homework, **E:**Report, **F:**Article Examination, **G:**Presentation, **I:**Experimental Skill, **J:**Project Observation, **K:**Class Attendance; **L:**Jury Exam

Main Textbook	Books, periodicals, theses, internet resources related to the subject to be studied.
Supporting References	Books, periodicals, theses, internet resources related to the subject to be studied.
Necessary Course Material	.

Course Schedule	
1	Definition of scientific research. Scientific research process and stages. Presentation of information on literature review and review and citation
2	Informative presentation on research report preparation, finalization of scientific research (reporting, thesis, oral presentation, project preparation)
3	Discussion about the subject and determination of the study topic
4	Scientific Source Research on the Subject
5	Scientific Source Research on the Subject
6	Scientific Source Research on the Subject
7	Scientific Source Research on the Subject
8	Mid-Term Exam
9	Evaluation of Research Results,
10	Evaluation of Research Results,
11	Preparations for the project
12	Preparations for the project
13	Discussion and writing of the study report
14	Discussion and writing of the study report
15	Discussion and writing of the study report
16,17	Final Exam

Calculation of Course Workload			
Activities	**Number**	**Time (Hour)**	**Total Workload (Hour)**
Course Time (number of course hours per week)	14	3	42
Classroom Studying Time (review, reinforcing, prestudy,….)	14	1	14
Homework			
Quiz Exam			
Studying for Quiz Exam			
Oral exam			
Studying for Oral Exam			
Report (Preparation and presentation time included)	1	40	40
Project (Preparation and presentation time included)			
Presentation (Preparation time included)			
Mid-Term Exam	1	1	1
Studying for Mid-Term Exam	1	15	15
Final Exam	1	1	1
Studying for Final Exam	1	15	15
		Total workload	**128**
		Total workload / 30	**4,27**
		Course ECTS Credit	**4**

Evaluation	
Activity Type	**%**
Mid-term	30
Report	40
Bir öğe seçin.	
Final Exam	30
Total	100

RELATIONSHIP BETWEEN THE COURSE LEARNING OUTCOMES AND THE PROGRAM OUTCOMES (PO) (5: Very high, 4: High, 3: Middle, 2: Low, 1: Very low)

NO	PROGRAM OUTCOME	Contribution
1	Adequate knowledge in mathematics, science and basic engineering subjects; ability to apply theoretical and applied knowledge in these areas to modelling and solving engineering problems	4
2	Ability to identify, define, formulate and solve complex engineering problems in civil engineering and related fields by selecting and applying appropriate analysis and modelling	4
3	Ability to design a complex system, device or product under realistic constraints and conditions by applying modern design methods in accordance with a specified objective	4
4	Ability to develop, select and use modern techniques and tools required for Civil Engineering applications and to utilise information technologies effectively	2
5	Ability to design experiments, conduct experiments, collect data, analyse and interpret results for the investigation of Civil Engineering problems	5
6	Ability to work in disciplinary and interdisciplinary teams	4
7	Effective oral and written communication skills in Turkish and the ability to use/develop knowledge of foreign languages	5
8	Awareness of the necessity of lifelong learning; the ability to access information, to follow developments in science and technology and to constantly renew oneself	5
9	Awareness of professional and ethical responsibility	4
10	Knowledge of business life practices such as project management, risk management and change management; awareness of entrepreneurship, innovation and sustainable development.	4
11	Knowledge about the effects of engineering applications on health, environment and safety in universal and social dimensions; awareness of national and international legal regulations and	4

LECTUTER(S)				
Prepared by	All academic staff			
Signature(s)				

Date:06.06.2024