

COURSE IDENTIFICATION FORM

Course Code and Name: IM5031 TRADITIONAL BUILDING MATERIALS

Department of: CIVIL ENGINEERING / MASTER'S DEGREE PROGRAM WITH THESIS

Semester	Theoretic Hour	Practice Hour	Total Hour	Credits	ECTS	Education Language	Type: Compulsory Elective
Fall	3	0	3	3	5	Turkish	Optional
Prerequisite (s)							
Instructor		Prof. Dr. Murat Dal				Mail : muratdal@munzur.edu.tr Web :	
Course Assistant						Mail : Web :	
Groups / Classes							
Course Aim		In the process of preservation and repair of historical buildings, it is aimed to know the traditional building materials technology and construction techniques, to determine the physical, chemical and mechanical properties of building materials such as stone, brick, wood, adobe and metal, including plaster and mortar of historical buildings, to evaluate the analysis results and to develop new solution suggestions.					
Course Goals							
Course Learning Outs and Proficiencies		Can recognize traditional building materials, Knows the analysis of traditional building materials, Knows the physical, chemical and mechanical properties of traditional building materials. Knows the physical properties of traditional building materials. Knows the chemical properties of traditional building materials. Knows the mechanical properties of traditional building materials.					
Course Basic and Auxiliary Contexts		<ul style="list-style-type: none">Doğal Taşlardaki Bozunmalar, Yrd.Doç.Dr. Murat DAL, Mimarlık Vakfı İktisadi İşletmesi, 2012.Malzeme Bilimi, Prof. Dr. Kaşif ONARAN, Bilim Teknik Yayınevi, 1993.Malzeme Bilimi Prob. ve Çözümleri, Prof. Dr. Kaşif ONARAN, Bilim Teknik Yay, 1993.Malzeme Bilimi Ders Notları, Prof. Dr. Ferruh KOCATAŞKIN, İ.T.Ü. İnş. Fak. Matbaası.					

- Cisimlerin Yapısı ve Özellikleri, Prof. Bekir POSTACIOĞLU, İ.T.Ü. Yayını, 1981.
- Malzemelerin Yapı ve Özellikleri, Cilt I, İç Yapılar, Cilt III, Mekanik Özellikler, Yazarlar: Moffatt, Pearsall ve Wulff, Çevirenler: K. Onaran ve B. Erman, İTÜ Yayını, 1982 ve 1978.
- Civil Engineering Materials, Ed. N. Jackson, 1984.
- The Nature and Properties of Engineering Materials, Zbigniew D. Jastrzebski, 1987.

Methods of Give a Lecture

Assessment Criteria		If Available, to Sign (x)	General Average Percentage (%) Rate
	1. Quiz	X	50
	2. Quiz		
	3. Quiz		
	4. Quiz		
	5. Quiz		
	Oral Examination		
	Practice Examination (Laboratory, Project etc.)		
	Final Exam	X	50
Semester Course Plan			
Week	Subjects		
1	Knowing traditional structures, materials, technologies and techniques in the process of preservation and repair of historical structures		
2	Knowing traditional structures, materials, technologies and techniques in the process of repair of historical structures		
3	Determining restoration intervention decisions by analyzing the structural details and other features (restitution, damage detection, material analysis) of traditional building materials in the process of preservation and repair of historical structures with different regions, periods and architectural functions, which are registered cultural assets.		

4	Physical properties of building materials such as stone, brick, wood, adobe and metal, including plaster and mortar, belonging to historical structures belonging to the period and region,
5	Chemical properties of building materials such as stone, brick, wood, adobe and metal, including plaster and mortar, belonging to historical structures belonging to the period and region,
6	Mechanical properties of building materials such as stone, brick, wood, adobe and metal, including plaster and mortar, belonging to historical structures belonging to the period and region,
7	Types of stone used in historical structures
8	Midterm Exam
9	Examination of stone deterioration in historical structures
10	Cleaning and protection of stone surfaces
11	Use of metals as traditional building materials
12	Protection and methods of wood types used as traditional building materials.
13	Protection of wood used as traditional building materials
14	General Exam-Presentations