

COURSE IDENTIFICATION FORM

Course Code and Name: IM5011 ADVANCED COATING TECHNOLOGIES

Department of : CIVIL ENGINEERING / MASTER PROGRAMME

Semester	Theoretic Hour	Practice Hour	Total Hour	Credits	ECTS	Education Language	Type: Compulsory Elective
Atumn/Spring	3	0	3	3	5	Turkish	Optional
Prerequisite (s)							
Instructor		Assoc. Prof. Dr. Mustafa AKPOLAT				Mail : mustafaakpolat@munzur.edu.tr Web :	
Course Assistant						Mail : Web :	
Groups / Classes							
Course Aim		1. Transfer of flexible pavement design methods 2. Teaching Superpave method in flexible pavement design 3. Introduction of additives used in bituminous mixtures 4. Teaching additive types and their benefits 5. Teaching recycling methods					
Course Goals		Bituminous hot mix design methods, Mixture Design with SUPERPAVE Method, Selection of suitable binder for the application area, Determination of pavement temperature by using air temperatures, Selection of aggregate resistant to weather and traffic conditions, Use of additives in bituminous hot mixtures, Purpose of additives, Types of additives, Polymer type additives and their effects, Natural asphalt additives and their effects, Use of waste materials in highway pavements, Recycling of flexible pavement materials and recycling methods.					
Course Learning Outs and Proficiencies		1. Learning flexible pavement design methods 2. Recognition of additives used in coating layers 3. To learn the uses and purposes of polymer and natural asphalt type additives 4. Learning recycling applications in flexible pavements					
Course Basic and Auxiliary Contexts		Prof. Dr. Mehmet YILMAZ - Advanced Coating Technologies Lecture Notes					
Methods of Give a Lecture		Face to Face					

Assessment Criteria		If Available, to Sign (x)	General Average Percentage (%) Rate
	Midterm Exam	X	40
	1. Quiz		
	2. Quiz		
	3. Quiz		
	4. Quiz		
	Oral Examination		
	Practice Examination (Laboratory, Project etc.)		
	Final Exam	X	60
Semester Course Plan			
Week	Subjects		
1	General Information		
2	Bituminous hot mix design methods		
3	Superpave design method		
4	Selection of suitable binder for the application area, coating temperature determination		
5	Selection of aggregates resistant to weather and traffic conditions		
6	Use of additives in bituminous hot mixes		
7	Purpose of additives, types of additives		
8	Polymer type additives and their effects		
9	MIDTERM EXAM		
10	Natural asphalt additives and their effects		
11	Use of waste materials in highway superstructures		
12	Recycling methods of pavement materials		
13	Foam asphalt method and design		
14	Special asphalt applications		