

SOLID WASTE MANAGEMENT

1	Course Title:	SOLID WASTE MANAGEMENT
2	Course Code:	CEV3034
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	6
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	1.00
10	Laboratory (hour/week):	0
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. Nezih Kamil SALİHOĞLU
15	Course Lecturers:	Prof.Dr. N. KAMİL SALİHOĞLU Doç. Dr. Selnur UÇAROĞLU
16	Contact information of the Course Coordinator:	Prof. Dr. N. Kamil SALİHOĞLU E-posta: nkamils@uludag.edu.tr Telefon: 0-224-2942118 Adres: Bursa Uludağ Üniversitesi, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 16059,Görükle /BURSA
17	Website:	
18	Objective of the Course:	The objects to establish a sustainable waste management are: 1. Basic information supply to students on quality, quantity, collection and transportation of wastes, 2. Explanation of waste disposal methods.
19	Contribution of the Course to Professional Development:	Engineer candidates are trained in waste management who are ready to work in waste management projects with different earnings such as planning, project design, cost, engineering calculations and management approaches.
20	Learning Outcomes:	
	1	Explain the basic principles of sustainable waste management,
	2	Carry out the characterization and analysis methods solid wastes,
	3	Estimate the physical characteristics of solid wastes
	4	Express the collection and transportation methods of solid wastes
	5	Solve the problems related to waste collection methods
	6	Decision the transportation methods of solid wastes
	7	Determine the landfill and transfer station location criteria
	8	Determine the disposal methods of solid wastes.
	9	
	10	
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Course Schedule, introduction, general knowledge and identification of solid wastes, decision on project groups. Determination of Project topics and groups.	Determination of characsesitics of solid wastes		
2	Solid waste management- Classification of solid wastes	Determination of characsesitics of solid wastes		
3	Quantity, composition, size and characteristics of solid wastes.	Quantity, composition, size and characteristics of solid wastes.		
4	Characteristics of solid wastes.	Quantity, composition, size and characteristics of solid wastes.		
5	Collection and transportation of solid wastes.	Calculations on waste collections		
6	Collection and transportation of solid wastes.	Calculations on waste collection and transportation.		
7	Transfer stations, transportation and disposal methods of solid wastes.	Transfer station location criteria		
8	Transfer stations, transportation and disposal methods of solid wastes. midterm exam	Transfer calculation		
9	Sanitary Landfilling	Landfill area and volume calculation		
10	Sanitary Landfilling	Landfill area and volume calculation		
11	Technical Visit	Technical Visit		
12	Recovery of solid wastes- Composting.	Composting calculation		
13	Composting- Incineration – Presentation of group projects.	Moisture and C/N calculations for composting		
14	Presentation of group projects.	Presentation of group projects.		
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical	2	2. Solid Waste Management Volume 1, United Nations Environment Programme (2005)	1.00	2.00
Practicals/Labs	14		1.00	14.00
Self study and preperation	10	for Decision-Makers in Developing Countries October 2020 EPA 530-R-20-002	1.00	10.00
Homeworks	1		30.00	30.00
Projects	1	(2019) Katı Atık Geri Dönüşüm ve Arıtma Teknolojileri El Kitabı. Türkiye Belediyeler Birliği. İstanbul – Temmuz 2019	10.00	10.00
Field Studies	1		5.00	5.00
Midterm exams	1		10.00	10.00
Others	0		0.00	0.00
Final Exams	1		10.00	10.00
TERM LEARNING ACTIVITIES		NUMBER	WEIGHT	
Total Work Load				121.00
Midterm Exam	1	20.00		4.03
Total work load/ 30 hr				
ECTS Credit of the Course				4.00
Home work-project	1	20.00		
Final Exam	1	60.00		
Total	3	100.00		
Contribution of Term (Year) Learning Activities to Success Grade		40.00		
Contribution of Final Exam to Success Grade		60.00		
Total		100.00		
Measurement and Evaluation Techniques Used in the Course		Student-centered assessment and evaluation methods and techniques are used in this course.		
24	ECTS / WORK LOAD TABLE			

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	0	0	0	0	5	5	0	0	3	0	0	0	0	0
ÖK2	0	5	0	0	0	0	4	4	0	0	0	0	0	0	0	0
ÖK3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0
ÖK5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	4	0	0	0	0	0	4	0	0	4	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low			3 Medium			4 High			5 Very High				