

# WASTE DISPOSAL AND LEGAL FRAMEWORK

1	Course Title:	WASTE DISPOSAL AND LEGAL FRAMEWORK
2	Course Code:	CEV5277
3	Type of Course:	Optional
4	Level of Course:	Second Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. GÜRAY ÇELİK
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Prof. Dr. Güray Salihoğlu gurays@uludag.edu.tr +90-224-2942120 Bursa Uludağ Üniversitesi, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü.
17	Website:	
18	Objective of the Course:	<p>To equip the students with the knowledge to establish waste management systems by learning all the concepts within the general waste management field,</p> <p>To provide the student to assess the waste management problems considering the technical, legal and economic aspects,</p> <p>To provide the student to compare the national waste management practices with international ones and be able to make a feasible system choice.</p>
19	Contribution of the Course to Professional Development:	The course will contribute to students' ability to comment on legal issues related with waste disposal and apply.
20	Learning Outcomes:	
	1	Will be able to develop solutions for waste management problems.
	2	Will know the legal issues related with waste disposal and be able to apply.
	3	Will be able to investigate the international applications, and be able to develop worldwide solutions while searching for national solutions.
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<b>21</b>	Course Content:	
	<b>Course Content:</b>	
<b>Week</b>	<b>Theoretical</b>	<b>Practice</b>
<b>1</b>	Hierarchy in waste management, integrated system solutions, national and international samples	
<b>2</b>	Technical issues to establish waste management systems	
<b>3</b>	Legal framework for waste disposal (Directives, Council Decisions, etc.)	
<b>4</b>	Waste codes, waste types and distributions, industry types, waste characteristics Regulation for General Aspects of Waste Management	
<b>5</b>	Issues to consider when establishing landfills, type of the landfills, Landfill lining and cover systems  Regulation for Waste Landfilling	
<b>6</b>	Facilities subject to permission, conditions to be environmental officer, responsibilities of environmental officer Regulation for Environmental Officer, Environmental Management Units and Environmental Consultancy Regulation for Permit and License	
<b>7</b>	Incineration of wastes and Regulation for Waste Incineration	
<b>8</b>	Waste oils, characteristics, sources, types, recovery, disposal Regulation for the control of waste oils	
<b>9</b>	Vegetable oils, characteristics, recovery, diesel production Regulation for the control of waste vegetable oils	
<b>10</b>	MID-TERM EXAMINATION	
<b>11</b>	Regulation for waste batteries and accumulators Regulation for the control of excavation soil, construction waste and debris	
<b>12</b>	Waste tyres, characteristics, environmental effects, recycling and disposal End-of-life vehicles, characteristics, environmental effects, recycling and disposal Regulation for the control of solid waste, regulations to control waste tyres and end-of-life vehicles	
<b>13</b>	Clinical waste, characteristics, possible environmental effects, disposal methods, sterilization and incineration	
<b>14</b>	Hazardous chemicals and related legal framework	

<b>22</b>	Textbooks, References and/or Other Materials:	1.Tchobanoglous, G.,Theisen, H., Eliassen, R., Integrated Solid Waste Management, Engineering, Principels and Management Issues , Mc.Graw Hill, 1993. 2.LaGrega, M.D., Buckingham, P.L., Evans, J.C., "Hazardous Waste Management", Mc Graw-Hill, N.Y.,1994. 3.White, P., Franke, M., Hindle, P., Integrated Solid Waste Management: A life cycle Inventory , London, Chapman & Hall,1995 4.Atık Mevzuatı (İlgili Yönetmelik ve Tebliğler)
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<b>23</b>	Assesment
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	20.00
Quiz	0	0.00
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	Attendance follow-up, homeworks and written exams will be used as measurement and evaluation techniques within the course.	

<b>24</b>	<b>ECTS / WORK LOAD TABLE</b>
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	13	5.00	65.00
Homeworks	1	36.00	36.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	17.00	17.00
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Total Work Load			180.00
Total work load/ 30 hr			6.00
ECTS Credit of the Course			6.00

<b>25</b>	<b>CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS</b>															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
<b>ÖK1</b>	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0
<b>ÖK2</b>	0	4	0	0	0	5	0	0	0	0	0	0	0	0	2	0
<b>ÖK3</b>	0	4	0	0	0	4	0	2	0	0	0	0	0	0	5	0

LO: Learning Objectives    PQ: Program Qualifications					
Contrib ution Level:	1 very low	2 low	3 Medium	4 High	5 Very High