DESIGN OF WASTEWATER COLLECTION SYSTEMS

1	Course Title:	DESIGN OF WASTEWATER COLLECTION SYSTEMS
2	Course Code:	CEV3036
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	6
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	2.00
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. Gökhan Ekrem ÜSTÜN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Prof.Dr.Gökhan Ekrem ÜSTÜN gokhaneu@uludag.edu.tr Adres: Uludağ Üniversitesi, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, Görükle, 16059, BURSA
17	Website:	
18	Objective of the Course:	To provide the students with the basic information and skills (which are) required in designing the environmental health facilities (Sewer systems) according to hydraulic and technical rules
19	Contribution of the Course to Professional Development:	To inform the candidates who will work on the relevant subject.
20	Learning Outcomes:	

	1	Acquiring adequate engineering designs in professional sense in the projects of sewer systems and seizing the modern technical development in the design studies related with removing the wastewater.
	2	Data editing and professional-level engineering. Rehabilitation works on the sewerage systems.
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21	Course Content:	

Course Content:	

Week	Theoretical	Practice
1	Introduction, General information, wastewater characterization	
2	Classification of sewerage system	

3	Comparison of sewerage system	
4	Channel network system	
5	Location and number of channels, sized sections of the channels	
6	Flows to incoming sewerage systems, leaking water incoming to the channels	
7	Hydraulic calculations of the channels and flows	
8	Operational equipments of channel Networks, inverted siphons	
9	Repeating courses and midterm exam	
10	Account the rain, the coefficient of time	
11	Flows to stormwater channels	
12	The calculation of the stormwater channels	
13	Spillways, wastewater pumps (Quiz)	
14	Infrastructure systems of Bursa, characteristics of the infrastructure systems.	

22	Textbooks, References and/or Other Materials:	1.Su Getirme ve Kanalizasyon Yapılarının Projelendirilmesi, Samsunlu A, SAM Çevre Teknolojileri Merkezi Yayınları-1997 2.Su Temini ve Çevre Sağlığı, Karpuzcu M.,Boğaziçi Üniversitesi Matbaası 1985 3.Standard Handbook for Civil Engineers, Frederick S. Merritt, McGraw-Hill Book Company.

Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical	R		14	2.00	28.00
Midterm Exam	1	30.00			
Practicals/Labs			0	0.00	0.00
Quiz	2	10.00			
Self study and preperation			14	1.00	14.00
Homeworks			0	0.00	0.00
Final Exam	1	60.00			
Projects			0	0.00	0.00
Field Studies			0	0.00	0.00
Contribution of Term (Year) Learning Activities to Midterm exams Success Grade	40,00	1		10.00	10.00
Others			0	0.00	0.00
Contribution of Final Exam to Success Grade Final Exams	60,00	1		10.00	10.00
Total	100,00				
Total Work Load					62.00
Measurement and Evaluation Techniques Used in the Exams Total work load/ 30 hr Course					2.07
ECTS Credit of the Course					2.00

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	0	0	0	0	0	0	0	0	0	0
ÖK2	0	3	3	0	0	0	0	0	0	0	0	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