DESING OF WASTEWATER COLLECTION SYSTEMS

1	Course Title:	DESING 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:	3.00	
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. SEVAL KUTLU AKAL SOLMAZ	
15	Course Lecturers:	Prof.Dr.Gökhan Ekrem ÜSTÜN	
16	Contact information of the Course Coordinator:	0 224 294 2106 , akal@uludag.edu.tr Adres: Uludağ Üniversitesi, Mühendislik-Mimarlık 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:		
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.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	20.00
Quiz	2	20.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	4	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		

24	**ECTS / WORK LOAD TABLE**

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	10.00	10.00
Others	1	8.00	8.00
Final Exams	1	12.00	12.00
Total Work Load			96.00
Total work load/ 30 hr			2.87
ECTS Credit of the Course			3.00

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**