WATER RESOURCES ENGINEERING

1	Course Title:	WATER RESOURCES ENGINEERING	
2	Course Code:	INS4051	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	4	
6	Semester:	7	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	1.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç.Dr. Adem AKPINAR	
15	Course Lecturers:	Doç Dr Serdar KORKMAZ	
16	Contact information of the Course Coordinator:	skorkmaz@uludag.edu.tr 0224 24 09 04	
17	Website:	http://insaat.uludag.edu.tr/	
18	Objective of the Course:	To know the development and control methods of water resources; to gain basic knowledge on the planning and management of hydraulic structures; to know the methods regarding the location and effective usage of water resources in energy production.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Learn basic concepts about water resources.
		2	Know flood protection and design protection structures.
		3	Know river structures, carry out hydraulic computations and decide on dimensions.
		4	Know and comprehend the efficient and effective usage of water resources.
		5	Carry out research and present the knowledge gained in oral and written forms.
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Development and planning of water resources	Recitation
2	River morphology	Recitation
3	Solid particle movement in rivers, bed movement	Recitation

4	Solid particle movement in rivers, measurement and computations	Recitation
5	River rehabilitation and planning	Recitation
6	River rehabilitation structures	Recitation
7	River rehabilitation structures	Recitation
8	Repeating courses and midterm exam	Recitation
9	Flood control	Recitation
10	Flood protection techniques and routing	Recitation
11	Flood protection structures	Recitation
12	River crossing	Recitation
13	Diversion weirs	Recitation
14	Diversion weirs	Recitation

22	Textbooks, References and/or Other Materials:	1. Yanmaz, A.M. (2006). Applied Water Resources Engineering, METU Press. 2. French, R. H. (1985), Open-Channel Hydraulics, McGraw-Hill, New York. 3. Chow, V. T. (1959), Open-channel Hydraulics, McGraw-Hill, New York.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	30.00
Quiz	0	0.00
Homeworks, Performances	6	10.00
Final Exam	1	60.00
Total	8	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	3.00	42.00
Practicals/Labs	14	1.00	14.00
Self study and preperation	14	4.00	56.00
Homeworks, Performances	6	6.00	36.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			154.00
Total work load/ 30 hr			5.07
ECTS Credit of the Course			5.00

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	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	5	4	4	4	0	0	0	0	4	0	4	4	0	0	0	0
ÖK5	0	3	0	0	0	0	5	4	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							