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:	Prof. Dr. Adem AKPINAR
15	Course Lecturers:	Doç Dr Serdar Korkmaz
16	Contact information of the Course Coordinator:	ademakpinar@uludag.edu.tr 0224 24 26 25
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	
2	River morphology	
3	Solid particle movement in rivers, bed movement	Problem solving

4	Solid particle movement in rivers, measurement and computations	Problem solving
5	River rehabilitation and planning	Problem solving
6	River rehabilitation structures	Problem solving
7	Flood protection	Problem solving
8	River crossing	Problem solving
9	Diversion weirs	Problem solving
10	Diversion weirs	Problem solving
11	Dams	
12	Dams	Problem solving
13	Water intakes and Energy dissipation structures	Problem solving
14	Water intakes and Energy dissipation structures	Problem solving

22	Textbooks, References and/or Other Materials:	1. Erkek, C., Ağıralioğlu, N., 2006, Su Kaynakları Mühendisliği, Beta Press. 2. Erkek, C., Ağıralioğlu, N., 2006, Su Kaynakları Mühendisliği problemleri ve çözümleri, Beta Press. 3. Yanmaz, A.M. (2006). Applied Water Resources Engineering, METU Press. 4. Mays, Larry W,2010, Water Resources Engineering, John Wiley & Sons. 5. French, R. H. (1985), Open-Channel Hydraulics, McGraw-Hill, New York.

23 Assesment

TERM LEARNING ACTIVITIES	NUMBE	WEIGHT
Midterm Exam	1	30.00
Home work-project	6	10.00
Midterm exams	8	10.00
Success Grade		100.00
Total		100.00

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	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			152.00
Total work load/ 30 hr			5.07
ECTS Credit of the Course			5.00

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	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0

ÖK4	5	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	3	0	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**