FLUID MECHANICS										
1	Course Title:	FLUID M	UID MECHANICS							
2	Course Code:	INS3053	3							
3	Type of Course:	Compuls	sory							
4	Level of Course:	First Cyc	cle							
5	Year of Study:	3								
6	Semester:	5								
7	ECTS Credits Allocated:	5.00	5.00							
8	Theoretical (hour/week):	2.00								
9	Practice (hour/week):	0.00								
10	Laboratory (hour/week):	1								
11	Prerequisites:	None								
12	Language:	Turkish								
13	Mode of Delivery:	Face to	face							
14	Course Coordinator:	Prof. Dr.	SERDAR KORKMAZ							
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	skorkma 0224 24	z@uludag.edu.tr 09 04							
17	Website:	http://insaat.uludag.edu.tr/								
18	Objective of the Course:	To teach the student the theory and application of fluid mechanics, the fundamental of hydraulic engineering								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	To be able to identify the physical properties of fluids							
		2	To be able to calculate the hydrostatic forces acting on plane and curved surfaces by means of theory and experiments							
		3	To be able to classify the types of fluid flow							
		4	To be able to apply the fundamental conservation principles to pressurized and open channel flow problems by means of theory and experiments							
		5	To be able to calculate the friction and minor losses in pressurized flows as well as pump and turbine powers							
		6	To be able to improve in observation, measurement and report writing habitude by means of laboratory experiments							
		7								
		8								
		9								
		10								
21	21 Course Content:									
	Course Content:									
Week	The field of finite sector	1	Practice							
1	dimensions and units	lions,	Recitation							
2	The field of fluid mechanics, descrip dimensions and units	tions,	Recitation							

3	Physi surfa	rface forces									Recitation									
4	Physi surfa	ysical properties of fluids, body and face forces									Recitation									
5	Hydro distrik	drostatics, governing equation, pressure tribution and measurement									Recitation									
6	Hydro surfae	drostatic forces on plane and curved faces									Recitation									
7	Hydro surfae	osta ces	tic for	ces or	n plan	e and o	curvec	1	Hy	Hydrostatic pressure experiment										
8	Kiner vecto eleme	ematics, position, velocity, acceleration ctors, motion and deformation of a fluid ment, flow types									Recitation									
9	Kinen vecto eleme	natio ors, r ent,	cs, po notior flow t	sition, and o ypes	veloc deforr	city, aco nation	celera of a fl	tion uid	Re	Recitation										
10	Conc Reyn	ncepts of system and control volume, ynolds Transport Theorem								citatio	n									
11	Cons energ	nservation of mass, momentum and ergy, Bernoulli's equation									Recitation									
12	Cons energ	nservation of mass, momentum and ergy, Bernoulli's equation								Water jet impact experiment										
13	Gene pipes grade	neral characteristics of flow in pressurized es, friction losses, energy and hydraulic ade lines.								Recitation										
14	General characteristics of flow in pressurized								Pite	ot tube	exper	riment								
Activites							٦	Number Duration (hour					hour)) Total Work Load (hour)						
Theore Materials:							Yp	Young, T. H. Okiishi, John Wiley, 2003. 28.00												
Practicals/Labs								1211	-101 <u>0 I</u> 4	<u>/lechar</u>	NCS 6Th	1.00			14.00					
Self study and preperation								1	14				5.00			70.00				
Homeworks							3	3				10.00			30.00					
Project	S		ACIT	VIIIES	,		R	OWDE		0			0.00			0.00				
Field Studies								0			0.00			0.00						
Øidz erm exams 0							0.0	0.00 2.0			2.00	2.00			2.00					
Others								C	0 0.00					0.00						
Final Exams 1								601	60100					2.00						
Total Work Load																146.00				
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ECTS Credit of the Course									5.00											
Contribution of Final Exam to Success Grade								60.	60.00											
Total								100	100.00											
Measur Course	remen	it an	d Eva	luatio	n lec	hnique	s Use	d in th	e											
24 ECTS / WORK LOAD TABLE																				
25	25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																			
	Р	'Q1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16			
ÖK1	4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

ÖK2	4	4	4	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	5	5	5	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK5	5	5	5	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK6	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib 1 very low ution Level:				2 low			3 Medium			4 High			5 Very High			