ACOUSTIC TEXTILES

1	Course Title:	ACOUSTIC TEXTILES	
2	Course Code:	TEK5054	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç. Dr. FATİH SÜVARİ	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	suvari@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	Analysis of the interaction of the sound wave with the textile material and the design of the textile material according to the expectations.	
19	Contribution of the Course to Professional Development:	To gain a textile material design approach in accordance with acoustic expectations.	
20	Learning Outcomes:		
		1	Being able to have knowledge on fundamentals of acoustics.
		2	To gain the ability to analyze material-sound wave interaction.
		3	To gain a textile material design approach in accordance with acoustic expectations.
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Acoustic textiles: an introduction	
2	Basics of acoustics	
3	Basics of acoustics	
4	Wave equation of the sound	
5	Standing waves	

6	Sound absorption coefficient	
7	Materials used for acoustic textiles	
8	Sound absorption of fibrous materials	
9	Sound absorption of fibrous materials	
10	Applications of acoustic textiles	
11	Nonwoven manufacturing methods for acoustic textiles	
12	Nonwoven manufacturing methods for acoustic textiles	
13	Design approach for acoustic textiles	
14	Design approach for acoustic textiles	

22	Textbooks, References and/or Other Materials:	1. Padhye, Rajiv, and Rajkishore Nayak, eds. Acoustic textiles. Singapore: Springer, 2016. 2. Barron, Randall F. Industrial noise control and acoustics. CRC Press, 2002. 3. Parikshit Paul, Rajesh Mishra & B. K. Behera (2021) Acoustic behaviour of textile structures, Textile Progress, 53:1, 1-64. 4. Demirkale, Sevtap Yılmaz. Çevre ve yapı akustiği: mimarlar ve mühendisler için el kitabı. Birsen yayınevi, 2007.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBE**	**WEIGHT**
Theoretical	0	0.00
Practicals/Labs	0	0.00
Self-study and preperation	1	100.00
Homeworks	0	0.00
Projects	0	0.00
Field Studies	0	0.00
Midterm exams	0	0.00
Others	0	0.00
Final Exams	1	0.00
Total		100.00

Activites	Number	Duration (hour)	Total Work Load (hour)
Home work-project	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self-study and preperation	14	9.50	133.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			177.00
Total work load/ 30 hr			5.90
ECTS Credit of the Course			6.00

24 ECTS / WORKLOAD TABLE

Success Grade

Course

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