TEXTILE INK-JET PRINTING

1	Course Title:	TEXTILE INK-JET PRINTING
2	Course Code:	TEK4068
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
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:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. MEHMET KANIK
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	E-mail: mekanik@uludag.edu.tr Tel: 224-2942050 Uludağ Üniversitesi Mühendislik Mimarlık Fakültesi Tekstil Mühendisliği Bölümü 16059-Görükle-BURSA
17	Website:	
18	Objective of the Course:	The aim of this course is to train the students in principles of ink jet printing, application of ink jet printing on the textiles and technological developments in this field.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	Being able to have knowledge on the theory of ink jet printing and its application in the textile industry.
	2	Being able to distinguish similarities and differences between classical and ink jet printing techniques.
	3	Being able to compare the different ink jet printing technologies.
	4	Being able to determine pre-and post-treatment conditions required for ink jet printing depending on the type of fabric and printing method.
	5	Being able to propose solutions to common errors in ink jet printing applications.
	6	Being able to observe and present of technological developments on textile ink jet printing.
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21	Course Content:	

Course Content:

Week	Theoretical	Practice

1	Introduction to digital printing technologies and ink jet printing.	
2	Fundamental principles used in ink-jet printing.	
3	Ink-jet printing systems and technical specifications-1	
4	Ink-jet printing systems and technical specifications-2	
5	Software for ink jet printing and their main functions.	
6	Ink-jet printing inks (dyes).	
7	Application of ink jet printing on the textiles.	
8	Pre- and after-reatments applied onto the fabrics for ink-jet printing-1.	
9	Pre- and after-reatments applied onto the fabrics for ink-jet printing-2.	
10	Repetition of past issues. Midterm exam.	
11	Common faults in ink-jet printing.	
12	Industrial visit.	
13	The latest developments in textile ink jet printing technologies. Home work presentations.	
14	The latest developments in textile ink jet	

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	1.00	14.00
Homeworks	1	15.00	15.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	12.00	12.00
Others	1	6.00	6.00
Final Exams	1	15.00	15.00
Total Work Load			90.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

Materials:
2. Ujiie, H., Digital Printing of Textiles, Woodhead Publishing Ltd., Cambridge, 2006.

23	Assessment				
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	Midterm Exam	1	30.00		
	Quiz	0	0.00		
	Home work project	1	20.00		
	Final Exam	1	50.00		
	Total	3	100.00		
	Contribution of Term (Year) Learning Activities to Success Grade	50.00			
	Contribution of Final Exam to Success Grade	50.00			
Total	100.00				
Measurement and Evaluation Techniques Used in the Course					

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	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5

ÖK3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5
ÖK4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5
ÖK5	0	0	0	0	0	0	4	3	0	2	0	0	0	0	4
ÖK6	0	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**