

DYEING TECHNOLOGY AND MACHINES

1	Course Title:	DYEING TECHNOLOGY AND MACHINES	
2	Course Code:	TKSS207	
3	Type of Course:	Compulsory	
4	Level of Course:	Short Cycle	
5	Year of Study:	2	
6	Semester:	3	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Öğr.Gör. NEVIN KARAHAN	
15	Course Lecturers:	Öğr.Gör.Nevin KARAHAN Prof. Dr. Behçet BECERİR Öğr. Gör. Semiha EREN	
16	Contact information of the Course Coordinator:	Teknik Bilimnler MYO nkarahan@uludag.edu.tr / tel: 2942351	
17	Website:		
18	Objective of the Course:	Definition of dyeing, basic properties and structure of dyestuff, to understand the important factors to prepare the color recipe, to study of the effect of fiber structure and process parameters on dyeing and to be able to compare the dyeing process.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To be able to analysis the properties and structures of dyestuff and to prepare the color recipes.
		2	To study of the effect of fiber structure and process parameters on dyeing.
		3	To be able to explain the structure of dyestuff and dyeing efficiency in dyeing of cellulosic fibers with reactive, vat and direct dyestuff.
		4	To study the general properties of protein fibers and dyeing process of silk and wool fibers.
		5	To study the dyeing process of polyester fibers
		6	To study the dyeing process of polyamide fibers
		7	To study the dyeing process of polyacrilyc fibers
		8	To study the dyeing process of mixed fabrics.
		9	
		10	
21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	

1	Definition of dyeing, structure and basic properties of dyestuff, information about important parameters to prepare the color recipes.	Introducing the materials which using at the laboratory
2	The effect of fiber structure and process conditions on dyeing.	Preparing solution
3	Dyeing efficiency of cellulosic fibers with reactive dyestuff	Preparing solution
4	Dyeing process of cellulosic fibers with reactive dyestuff.	To dye the cotton fabric sample with reactive dyestuff by exhaust method
5	Dyeing process of cellulosic fibers with vat dyestuff.	To dye the cotton fabric sample with reactive dyestuff by pad batch method
6	Dyeing process of cellulosic fibers with direct dyestuff.	To dye the cotton fabric sample with direct dyestuff by exhaust method
7	General properties of protein fibers and dyeing process of wool fibers.	To dye the wool fibers with acid dyestuff by exhaust method.
8	Repeating courses and midterm exam I	Answering the exam questions
9	Dyeing process of silk fibers.	To dye the silk fibers by exhaust method.
10	Dyeing process of polyester fibers.	To dye the polyester fibers using with carrier by exhaust method.
11	Dyeing process of polyacrylic fibers.	To dye the polyacrylic fibers by exhaust method.
12	Dyeing process of polyamide fibers.	To dye the polyamide fibers by exhaust method.
13	Repeating courses and midterm exam	Answering the exam questions
14	Dyeing process of mixed fabrics	Dyeing process of mixed fabrics
22	Textbooks, References and/or Other Materials:	<p>Öğr.Gör.Nevin Karahan Boya Teknolojisi ders notları, T.K.A.M. YAYINLARI, GENEL TERBİYE 10. Cilt</p> <p>Industrial Dyes Chemistry Properties Applications, Klaus Hunger, Wiley-VCH, 2003.</p> <p>The Chemistry and Application of Dyes, D.R. Waring and G. Hallas, Plenum Press, New York,1990</p> <p>Boya Baskı Esasları, Prof.Dr. Abbas Yurdakul, Araş.Gör.Rıza Atav</p>
23	Assesment	
TERM LEARNING ACTIVITIES		NUMBE R
		WEIGHT
Midterm Exam	2	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	3	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	2.00	28.00
Self study and preperation	14	4.00	56.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	2	15.00	30.00
Others	0	0.00	0.00
Final Exams	1	24.00	24.00
Total Work Load			210.00
Total work load/ 30 hr			6.00
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	0	0	0	5	4	0	0	0	0	0	0	0	0	0	0	0
ÖK2	5	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	3	0	4	5	5	0	0	4	0	4	0	0	0	0	0	0
ÖK4	3	0	4	5	5	0	0	4	0	4	0	0	0	0	0	0
ÖK5	3	0	4	5	5	0	0	4	0	4	0	0	0	0	0	0
ÖK6	3	0	4	5	5	0	0	4	0	4	0	0	0	0	0	0
ÖK7	3	0	4	5	5	0	0	4	0	4	0	0	0	0	0	0
ÖK8	3	0	4	5	5	0	0	4	0	4	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				