NEW SPINNING SYSTEMS

1	Course Title:	NEW SPINNING SYSTEMS	
2	Course Code:	TEK5530	
3	Type of Course:	Optional	
4	Level of Course:	Second 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:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. SUNAY ÖMEROĞLU	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	Prof.Dr. Sunay ÖMEROĞLU e-mail: sunay@uludag.edu.tr Tel: 0 224 294 2053 Bursa Uludağ Üniversitesi Mühendislik-Mimarlık Fakültesi Tekstil Mühendisliği Bölümü 16059-Görükle-Bursa	
17	Website:		
18	Objective of the Course:	To express weak points and limitations of conventional ring spinning. To give the students information about the yarn formation, the yarn properties and the machine designs in compact spinning, open end rotor spinning, open end friction spinning and air jet spinning.	
19	Contribution of the Course to Professional Development:	To get detailed information about new spinning systems.	
20	Learning Outcomes:		
		1	Can define characteristic properties of new spinning systems
		2	Can explain yarn formation principles in new spinning systems
		3	Can define machine designs used in new spinning systems.
		4	Can explain limitations and possibilities of different new spinning systems
		5	Can determine process and machine parameters in order to obtain specific yarn properties
		6	Can transfer the information by using presentation techniques
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		9	
		10	
21	Course Content:		

	Course Content:	
Week	Theoretical	Practice
1	Main advantages and disadvantages of new spinning systems	
2	Development efforts in ring spinning and compact spinning	
3	Different machine designs used in compact spinning systems	
4	Yarn formation on open end spinning	
5	The yarn production and the yarn properties in rotor spinning system	
6	Rotor spinning machines of different producers	
7	Principles of yarn formation on friction spinning systems and properties of friction spun yarns	
8	Masterspinner, Dref 2000 and Dref 3000 Friction spinning machines	
9	Principle of the false twist method	
10	Principles of yarn formation on air-jet spinning system	
11	Air-jet spinning machines	
12	Properties of the air-jet spun yarns	
13	- Student presentation - Answer – question session - General evaluation of presentation	
14	- Student presentation - Answer – question session - General evaluation of presentation	

22	Textbooks, References and/or Other Materials:	- Ülkü,Ş., Yeni İplikçilik Sistemleri, Uludağ Üniversitesi, 2002. -Ömeroğlu, S., Kompakt İplikçilik Sisteminde Üretilen İpliklerin Yapısal Özellikleri ve bazı Üretim Parametrelerinin Etkileri Üzerine Bir Araştırma, Doktora tezi, 2002. - Klein,W., New Spinning Systems, The Textile Institute, 1993. - Lawrence C.A., Fundamentals of Spun Yarn Technology,2003. - Mc Creight, D.J., Short Staple Yarn Manufacturing, 1997. - Machine catalogues, CD's, related Internet Sites.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	30.00
Quiz	0	0.00
Home work-project	1	10.00
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	Written examination and term paper.

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	12	5.00	60.00
Homeworks	1	30.00	30.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	20.00	20.00
Others	1	6.00	6.00
Final Exams	1	25.00	25.00
Total Work Load			183.00
Total work load/ 30 hr			6.10
ECTS Credit of the Course			6.00

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	4	3	0	0	3	4	5	0	0	0	0	0	0	0	0	0
ÖK2	4	4	0	0	4	4	4	0	0	0	0	0	0	0	0	0
ÖK3	4	4	0	0	4	4	4	0	0	0	0	0	0	0	0	0
ÖK4	4	4	0	0	4	4	5	0	0	0	0	0	0	0	0	0
ÖK5	4	4	0	0	4	4	5	0	0	0	0	0	0	0	0	0
ÖK6	4	4	0	0	4	4	4	4	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