

## 1. Course Description

COURSE DESCRIPTION FORM	
Course Code and Title	CHE468 TEXTILE DYE AND FABRIC DYEING TECHNOLOGY
Course Semester	8
Catalog Description (Content) of the Course	Fabric dyeing and printing theory. Color fastness. Classification and properties of dyestuffs. Dyeing of cellulosic, protein, polyester staple fibres.
Main Textbook	Textile Science, E.P.G. Goh and L.D. Vilensky, Longman Cheshire, Melbourne, 1980
Supporting Textbooks	Color Chemistry, H. Zollinger, VCH, Weinheim, 1987 • The Chemistry and Application of Dyes, D.R. Waring and G. Hallas, Plenum Press, New York, 1990 • Developments in the Chemistry and Technology of Organic Dyes, J. Griffiths, SCI, London, 1984 • The Theory of Coloration of Textiles, A. Johnson, SDC, Bradford, 1995
Course Credit (ECTS)	4
Prerequisites of the Course (Compulsory attendance should be indicated here.)	No
Type of the Course	Elective
Instruction Language of the Course	English
Object and Target of the Course	Examination of textile dye synthesis, informing about dyeing and printing several fibres, quality evaluation of dyestuff and fabric dyeing.
Learning Outcomes of the Course	Informing about textile dye, fabric dyeing and printing technology.
Mode of Delivery	Face to face education
Weekly Schedule of the Course	<b>COURSE CONTENT</b>
	1. week Color and colorfulness
	2. week Fabric dyeing and printing technology
	3. week Dyeing machines
	4. week Color fastness
	5. week Color fastness
	6. week Classification of dyes
	7. week Classification of dyes
	8. week Dyeing of cellulose fibre, reactive and direct dyestuffs
	9. week Dyeing of cellulose fibre, reactive and direct dyestuffs
	10. week Dyeing of polyester staple fiber, disperse and vat dyes

	11. week	Dyeing of polyester staple fiber, disperse and vat dyes			
	12. week	Dyeing of protein staple fibre, acid and chromedyes			
	13. week	Dyeing of protein staple fibre, acid and chromedyes			
	14. week	Dyeing of protein staple fibre, acid and chromedyes			
<b>Educative Activities</b> <i>(Credit will be determined based on the time given for these activities. Should be filled carefully.)</i>	Theoretical Study Hours of Course Per Week Reading Searching in Internet and Library Preparing Reports Preparing Presentation Presentation Mid-Term and Studying for Mid-Term Final and Studying for Final				
<b>Assessment Criteria</b>		<b>Quantity</b>	<b>Total Contribution (%)</b>		
	Midterm	2	40		
	Homework	-	-		
	Assignment	-	-		
	Projects	1	20		
	Practice	-	-		
	Quiz	-	-		
	Contribution of In-term Studies to Overall Grade		60		
	Contribution of Final Examination to Overall Grade		40		
	Attendance				
<b>Workload of the Course</b>		<b>Activity</b>	<b>Total Week Count</b>	<b>Weekly Duration (in hour)</b>	<b>Total Workload in Semester</b>
		Theoretical Study Hours of Course Per Week	14	3	42
		Reading	8	2	16
		Searching in Internet and Library	8	2	16
		Preparing Reports	3	3	9
		Preparing Presentation	1	3	3
		Presentation	1	1	1
		Mid-Term and Studying for Mid-Term	2	4	8
		Final and Studying for Final	1	5	5
		Total work load			100
		Total work load/25			4.0
		ECTS of the course			4

		Number	Program Outcomes	1	2	3	4	5
		1	Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.	x				
		2	Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.	x				
		3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.	x				
		4	Ability to devise, select, and use modern techniques and tools needed for engineering practice; ability to employ information technologies effectively.	x				
		5	Ability to design and conduct experiments, gather data, analyze and interpret results for investigating engineering	x				

		problems.						
	6	Ability to work efficiently in intra-disciplinary teams.				x		
	7	Ability to work efficiently in multi-disciplinary teams;	x					
	8	Ability to work individually.				x		
	9	Ability to communicate effectively in Turkish/English, both orally and in writing; Ability to write effective reports and comprehend written reports, make effective presentations,				x		
	10	prepare design and production reports, give and receive clear and intelligible instructions.	x					
	11	Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.		x				
	12	Awareness of professional and ethical responsibility.				x		
	13	Information about business life practices such as project management, risk management, and change management.			x			
	14	Information about awareness of entrepreneurship, innovation, and sustainable development.		x				

	15	Knowledge about contemporary issues and the global and societal effects of engineering practices on health, environment, and safety.				x	
	16	Knowledge about awareness of the legal consequences of engineering solutions.			x		
	17	Knowledge on standards used in engineering practice.			x		
<b>Name of Lecturer(s) and Contact Information</b>		1. Prof. Dr. Atilla MURATHAN, murathan@gazi.edu.tr 2. Prof. Dr. Ayşe MURATHAN, amurathan@gazi.edu.tr					