

ILT 512 PRODUCTION TECHNIQUES OF RAW MATERIALS OF DYES					ADVANCED TECHNOLOGIES				
Semester	Teaching and Learning Methods (Hours per semester) Credits							Credits	
	Lecture	Recit	Lab.	HW	Term Paper/Project	Other	Total	Credit	ECTS
1-2	42	-	-	27	35	84	188	3	7.5
Language	Turkish								
Compulsory / Elective	Elective								
Prerequisites	None								
Course Contents	Sulfonation; sulfonic acids of benzene, anthraquinone etc. Halogenation; chlorination of toluene etc. and other halogenations. Nitration; nitrobenzene, nitrotoluene and their derivatives. Amination; aniline, naphthylamin etc. Aminoanthraquinones and examples to other production processes. Purification and characterization of products.								
Course Objectives	To give information about -production techniques of raw materials of dyes, -purification and characterization of products.								
Learning outcomes and competences	To be informed about the election of suitable techniques for production of raw materials having required properties.								
Text Book and/or References	<ul style="list-style-type: none"> - Groggins, P.H., Unit Processes in Organic Synthesis, McGraw-Hill, 1958, Tokyo - Çataltaş, İ., Kimya Endüstrisinde Organik Prosesler, Cilt 1 ve 2, İnkılap ve Aka, 1980, İstanbul - Faith, W.L. et al., Industrial Chemicals, John Wiley-Sons, 1966, USA - Venkataraman, K., The Chemistry of Synthetic Dyes, Vol.1, Academic Press, 1952, New York - Tüzün, C., Organik Kimya, Ankara Üniv.Fen Fak.Yayınları, 1975, Ankara - Kirk Othmer, Encyclopedia of Chem.Tech., John Wiley-Sons, USA, 1982 								
Assessment Criteria							If Any/mark	Percentage %	
	Midterm Exams						X	35	
	Quizzes						-	-	
	Homeworks						x	5	
	Projects						x	20	
	Term Paper						-	-	
	Laboratory Work						-	-	
	Other						X	-	
	Final Exam						X	40	
Prepared by	Prof. Dr. Ahmet Alıcılar								
Week	Subject								
1-3	Sulfonation; sulfonic acids of benzene, anthraquinone etc.								
4-6	Halogenation; chlorination of toluene etc. and other halogenations.								
7-9	Nitration; nitrobenzene, nitrotoluene and their derivatives.								
10-12	Amination; aniline, naphthylamin etc. Aminoanthraquinones and examples to other production processes.								
13-14	Purification and characterization of products.								

