

Course Name	Leather Processing II			
Course Code	LENG2132			
Degree Program	B.Sc. in Leather Engineering			
Module Coordinator	TBA			
Lecturer	Yusuf A			
ECTS Credits	5			
Contact Hours (per week)	Lec.	Practical work	Tutor.	Home study
	4	2	-	4
Course Objectives & Competences to be Acquired				
Course Description/Contents	<p>Course Description</p> <ol style="list-style-type: none"> Neutralization:- Its objectives, necessities and controls to achieve desired up-take of dyes and fat liquors. Bleaching: - Definition; theory; mechanism of chemical bleaching; classification and application of different methods of bleaching to leathers. Theory of optical bleaching and possibilities of its" application to leather bleaching. Retanning: Objectives of retannage- Effect of different retanning agents on properties of leather- Principles of bondage of retanning materials as special reinforcing agent. Retanning Syntan: Chemistry and classification- tanning power- role of hydroxyl group and molecular size of syntan- electron affinity and chemical structure- mechanism of synthetic tannage- general method of manufacture of aromatic syntan-their general properties- different types of syntan- chromium and aluminum containing syntan- syntan for retanning purpose- bleaching action and neutralization. Fat liquoring: - types and chemistry of fat liquoring Techniques - Principles and objectives of fat liquoring; difference between natural and synthetic fats & oils; controls to achieve desired properties of leather.. Dyeing: - Theory and mechanism of dyeing; concept of colour; manual color matching. Color and Chemical Constitution of Dyes – Classification of Dyes – Different Dyes – Azo – Azoic – Sulfur Dyes – Anthraquinone Dyes – Acridine – Azine – Methine – Nitro – Nitroso – Oxazine – Quinoline Dyes – Phthalocyanine Dyes & Pigments – Organic Pigments – Basic Dyes – Cationic Dyes – Photochemistry of Dyes. Synthetic fat liquor Advantages & Disadvantages of Synthetic Fat liquors. 			

	<p>8. Water proofing: - Definition, theory and need of water barrier characteristics in leather. Difference among water repellent, water resistant and water proof leather. Principals involved in different methods of water proofing followed in leather industry.</p> <p>9. Theory Of Leather Drying: - Principles of energy and mass transfers; physico- chemical aspects of leather drying; different methods of drying followed in leather industry.</p>	
Pre-requisites	<u>Leather Processing I</u>	
Semester	Year II, Semester II	
Teaching & Learning Methods	Lectures, group and individual discussion and practical work, Demonstrating	
Assessment / Evaluation System	Internal Assessment	50%
	Final Exam	50%
Attendance Requirements	100% in practical	
Literature	<p>1. Introduction to the Principles of Leather Manufacture- S. S. Dutta, 4th Edn. I. L. T. A., Calcutta.</p> <p>2. Theory And Practice Of Leather Manufacture. - K . T . SARKAR</p> <p>3. Leather Technician's Handbook - J . H . Sharphouse .</p> <p>4. Chemistry Of Tanning Process - K . H . Gustavson .</p> <p>5. tanning chemistry the science of leather antony covington</p>	