



INNOVATIVE TECHNIQUES IN LEATHER MANUFACTURING

COORDINATION

OCAK, BUĞRA

ACADEMIC YEAR

2023-2025

SUBJECT GENERAL INFORMATION

Subject name	INNOVATIVE TECHNIQUES IN LEATHER MANUFACTURING			
Code	4SEM-GC-SUB1			
Typology	4th semester. Continued evaluation.			
Course number of credits (ECTS)	3			
Type of activity, credits, and groups	<i>Degree</i>	<i>Course</i>	<i>Character</i>	<i>Modality</i>
	<i>Joint Master Degree in Leather Technology</i>	<i>1</i>	<i>Compulsory</i>	<i>Blended learning</i>
Coordination	OCAK, BUĞRA			
University	EGE			
Language	English			

LEARNING OBJECTIVES

- 1- Apply the technological developments to the leather industry
- 2- Understand the relationship between innovative chemicals and performance characteristics of leather products
- 3- To have the information about banned or potentially harmful chemicals

LEARNING OUTCOMES

Basic

CB6 Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context.

CB10 That students have the learning skills that allow them to continue studying in a way that will be largely self-directed or autonomous.

General

CG1. Appropriately apply mathematical, analytical, scientific, instrumental, technological and management aspects

CG2. Technically and economically manage projects, facilities, plants, companies and technology centres

CG3. Research, develop and innovate

Transversal

CT3. Propose innovative, creative and entrepreneurial solutions in situations typical of the professional field.

Specific

CE2. Analyse, apply and project the main unit operations and the systems that make up the leather manufacturing process

CE3. Apply basic knowledge and applications of environmental technologies and sustainability in the field of leather engineering

CE4. Apply theories and principles of leather engineering in order to analyse complex situations and make decisions using engineering resources

CE5. Identify the main industrial processes of leather manufacturing in its three phases: beamhouse, tanning and post-tanning and finishing

CE9. Project, calculate and design products, processes, facilities and plants, related to the field of leather engineering.

SUBJECT CONTENT

1. INTRODUCTION TO INNOVATIVE TECHNIQUES

- L1.1 Basic concepts regarding to the course
- L1.2 Changes and developments in the world leather industry
- L1.3 REACH regulation and restricted chemicals

2. INNOVATIVE TECHNIQUES ON BEAMHOUSE OPERATIONS

- L2.1 Innovative pre-tanning process steps (Soaking-softening, un-haring, liming)
- L2.2 Innovative pre-tanning process steps (Descaling, bating, degreasing)
- L2.3 Innovative tanning methods

3. INNOVATIVE TECHNIQUES ON WET-END OPERATIONS

- L3.1 Innovative approaches in post tanning processes (Retanning, fatliquoring)
- L3.2 Innovative approaches in post tanning processes (Dying)

4. INNOVATIVE TECHNIQUES ON FINISHING

- L4.1 Innovative approaches in finishing processes.

METHODOLOGY

THEORY CLASSES

Expository lectures: by the teacher, with the explanation of concepts, materials and work plan.
Support material: Course notes and relevant bibliography.

EXERCISES AND SELFSTUDY

General description: Individual exercises, self-learning and individual study.
Support material: Course notes and relevant bibliography.
Deliverable: Exercises to deliver at the end of every unit via digital campus.

EVALUATION

Exam 1	40%
Exam 2	60%