



POLYMERS

COORDINATION

BACARDIT DALMASES, ANNA

ACADEMIC YEAR

2023-2025

SUBJECT GENERAL INFORMATION

Subject name	POLYMERS			
Code	1SEM-SUB1			
Typology	1st semester. Continued evaluation.			
Course number of credits (ECTS)	6			
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	BACARDIT DALMASES, ANNA			
University	UdL			
Language	English			

LEARNING OBJECTIVES

1. Identify different polymeric materials used in the industry.
2. Description of different polymerization processes at the industrial level.
3. Plan the synthesis of a polymer.
4. To explain the modifications produced in the leather when it is retanned with certain types of polymers.
5. Deduct which types of monomers should be used to obtain a polymer to be used in the leather finishing process.
6. Define the main characteristics of the polymers used in the skin finishing process.
7. Analyse different types of polymers to determine their physical, structural and chemical properties.

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.

CB7 That students have the learning skills that allow them to continue studying in a way that will be largely self- directed or autonomous.

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General

CG3 Research, develop and innovate.

Specific

CE1 Analyse the different raw materials, intermediate and final products in the leather manufacturing process.

SUBJECT CONTENT

1. SYNTHESIS OF MACROMOLECULES AND POLYMERS.
2. APPLICATION OF MACROMOLECULES AND POLYMERS IN LEATHER FINISHING.
3. INTRODUCTION TO POLYMERIC MATERIALS.
4. STRUCTURE, CONFORMATION AND MORPHOLOGY OF POLYMERS.
5. PHYSICAL, STRUCTURAL AND CHEMICAL PROPERTIES OF POLYMERS.
6. SYNTHESIS OF ACRYLIC RESINS.
7. SYNTHESIS OF BUTADIENE RESINS.
8. SYNTHESIS OF POLYURETHANES.
9. SYNTHESIS OF CELLULOSE DERIVATIVES LACQUERS.
10. ANALYSIS OF THE POLYMERS USED IN THE LEATHER FINISHING PROCESSES.

METHODOLOGY

- 1 MASTER CLASSES.
- 2 EXERCISE AND / OR PROBLEM RESOLUTION 3 PRACTICES.
- 4 GROUP WORK.
- 5 VISIT.
- 6 CONFERENCES.
- 7 WRITTEN WORK.
- 8 INVERTED EDUCATION

EVALUATION

Exercises	10%
Study case resolution	10%
Practices report	10%

Written test 50%

Company visit 10%

Tutor's report 10%
