



**Jordan University of Science and Technology**  
**Faculty of Engineering**  
**Chemical Engineering Department**

CHE421 Tanning Technology
Second Semester 2024-2025

Course Catalog
3 Credit Hours. It is 3 credit hours course covers the principles and practices of leather production, from raw hide preservation to finished leather processing. Students will explore chemical and mechanical tanning methods, sustainable techniques, and quality control testing. Emphasis is placed on industry standards (ISO/IULTCS), environmental best practices, and performance evaluation. Hands-on labs and case studies prepare students for careers in leather manufacturing and R&D.
<b>Teaching Method:</b> Electronic Course

Text Book	
<b>Title</b>	Innolea Project-Innovation of the Leather Industry in Jordan and Egypt- Hand out ( Portugal and Romania Training)
<b>Author(s)</b>	Joaquim Gaio
<b>Edition</b>	1st Edition
<b>Short Name</b>	Ref#1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Text Book	Introduction to the principles of Leather Manufacture	Prof. S . S. Dutta	4th Edition	I.L.T.A. Publication.
Ref #2	Chemistry And Technology Of Leather	Lollar , Roddy	1st Edition	Vol . II & III -

Instructor	
Name	Mr. SALAHEDDIN ABUYAHYA
Office Location	CH2 L-2
Office Hours	

Email	seabuyahya@just.edu.jo
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Class Schedule & Room
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Section 1:  
 Lecture Time: Sun, Tue : 17:00 - 18:00  
 Room: متزامن الحضور منصة الكترونية

Tentative List of Topics Covered
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Weeks	Topic	References
Weeks 1, 2, 3	Introduction + Raw hides and skins	From <b>Ref#1</b> , From <b>Text Book</b> , From <b>Ref #2</b>
Week 4	Slaughterhouse and curing operations	From <b>Ref#1</b> , From <b>Text Book</b> , From <b>Ref #2</b>
Weeks 5, 6, 7	Wet stage leather processing - From the beam house to the tan yard	From <b>Ref#1</b> , From <b>Text Book</b> , From <b>Ref #2</b>
Weeks 8, 9	Wet stage leather processing - From tanning to the finishing	From <b>Ref#1</b> , From <b>Text Book</b> , From <b>Ref #2</b>
Weeks 10, 11	Best available techniques in the tanning	From <b>Ref#1</b> , From <b>Text Book</b> , From <b>Ref #2</b>
Weeks 12, 13, 14, 15, 16	Lab testing and quality control of the leather	From <b>Ref#1</b> , From <b>Text Book</b> , From <b>Ref #2</b>

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Explain Fundamental Tanning Processes	10%	
Analyze Raw Materials and Preservation Techniques	15%	
Demonstrate Wet and Dry Stage Leather Processing	15%	
Apply Best Available Techniques (BATs) for Sustainable Tanning	10%	

Relationship to Program Student Outcomes (Out of 100%)						
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SO1	SO2	SO3	SO4	SO5	SO6	SO7

Policy
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Course Policy	<p>Regular attendance is mandatory for lectures and lab sessions, with more than nine absences potentially affecting your final grade. The Final project must be submitted and presented as per as the given schedule on time through the designated platform, as late submissions will incur a 10% penalty per day. Academic integrity is strictly enforced?plagiarism, cheating, or any form of academic dishonesty will result in disciplinary action. Active participation in discussions, labs, and group projects is expected and contributes to your overall evaluation.</p> <p>Assessment Component Weight Midterm Exam 40% Term Project 10% Final Exam 50% Total 100%</p>
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Date Printed: 2025-06-29