

Syllabus for buffing/snuffing and plating operator for tannery

Course Name	Buffing/snuffing and plating operator for tannery
Sector	Leather
Course Code	LEA/2024/BSOT/361
Level	3
Occupation	Buffing/snuffing and plating operator for tannery
Job Description	A Buffing/Snuffing and Plating Operator for a tannery is responsible for ensuring the quality and efficiency of leather processing operations. By effectively managing buffing/snuffing techniques, machine operation with dedusting, and plating processes and machinery, this role contributes to the production of high-quality leather products that meet customer expectations and industry standards.
Course Duration	Total Duration 390 Hrs (T- 90 , P- 180 , OJT-60 and ES-60)
Trainees' Entry Qualification	Grade 10 OR Grade 8 with two year of (NTC/ NAC) after 8 th OR Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 2 yrs relevant experience OR Previous relevant Qualification of NSQF Level 2 with one yr experience OR Previous relevant Qualification of NSQF Level 2.5 with 6 months experience
Trainers Qualification	2 years Certificate in relevant subject with 2 years industrial experience 3 years diploma in relevant subject with 1-year industrial experience

Structure of Course:

Module No.	Module name	Outcome	Theory (Hrs)	Practical (Hrs)	Total (Hrs) [Multiple of 30]
1	Introduction to Tannery Operations	Comprehend the leather tanning process with the proper utilization of common tools and equipment.	20	40	60
2	Buffing/snuffing Techniques and Machine Operation with Dedusting	Execute buffing/snuffing techniques and machine operations while ensuring thorough dedusting.	30	60	90
3	Plating Processes and Machinery	Demonstrate plating processes utilizing appropriate machinery.	20	40	60
4	Safety in workplace	Apply safe working	20	40	60

Module No.	Module name	Outcome	Theory (Hrs)	Practical (Hrs)	Total (Hrs) [Multiple of 30]
		Practices			
5	OJT	Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	--	60	60
6	Employability Skill	As per guided curriculum	60	--	60
TOTAL:			150	240	390

SYLLABUS:**Module No 1: Introduction to Tannery Operations**

Outcome: Comprehend the leather tanning process with the proper utilization of common tools and equipment.

Theory Content:

- Overview of the leather tanning process.
- Importance of safety protocols in tannery operations.
- Introduction to common tools and equipment used in buffing/snuffing and plating.
- Environmental and sustainability considerations in the tanning industry.

Practical Content:

- Hands-on demonstrations of safety procedures and protocols.
- Familiarization with the basic tools and equipment used in buffing/snuffing and plating.
- Practical exercises involving the safe handling of machine, tools and chemicals.
- Discussions and exercises related to environmental and sustainability practices in tannery operations.

Tools & Equipment:

- Safety gear (gloves, goggles, aprons, etc.).
- Basic hand tools used in the tanning process.
- Models or demonstrations of the tanning process.
- Materials for environmental discussions and sustainability practices.

Module No 2: Buffing/snuffing Techniques and Machine Operation with Dedusting

Outcome: Execute buffing/snuffing techniques and machine operations while ensuring thorough dedusting.

Theory Content:

- Understanding the components and functions of buffing/snuffing machinery.
- Explanation of different buffing/snuffing techniques.

- Dedusting Operation: Understanding the importance of dedusting in leather processing.
- Techniques and equipment used in dedusting operations.
- Recognition of various types of leather and their specific buffing/snuffing requirements.
- Principles of quality control and inspection.

Practical Content:

- Hands-on training in operating buffing/snuffing machinery.
- Application of various buffing/snuffing techniques on different types of leather.
- Dedusting Operations: Practical training on dedusting procedures during and after the buffing/snuffing process.
- Use of dedusting equipment for effective dust removal.
- Quality control exercises, including defect identification.
- Conducting thorough inspections of buffed leather products, including dedusting assessment.

Tools & Equipment needed:

- Buffing/snuffing machines and related tools.
- Different types of leather for practice.
- Quality control tools (e.g., magnifying glasses, inspection checklists).
- Materials for practical exercises.

Module No 3: Plating Processes and Machinery

Outcome: Demonstrate plating processes utilizing appropriate machinery.

Theory Content:

- Training on plating machinery and its components.
- Techniques for plating and achieving desired finishes.
- Pre-plating surface preparation and treatment.
- Principles of quality control and inspection for plated leather.

Practical Content:

- Hands-on experience with plating machinery and equipment.
- Application of various plating techniques on leather.
- Surface preparation and treatment exercises.
- Inspection and quality control of plated leather.

Tools & Equipment needed:

- Plating machines and related tools.
- Leather for plating practice.
- Quality control tools (e.g., magnifying glasses, inspection checklists).
- Materials for surface preparation and treatment.

Module No 4: Safety in workplace**Outcome:** Apply safe working Practices**Theory Content:**

- Advanced safety procedures and precautions for buffing/snuffing and plating operations.
- Maintenance and troubleshooting of machinery.
- Environmental regulations and best practices in tannery operations.
- Emergency response procedures and basic first aid.

Practical Content:

- Practical application of advanced safety procedures.
- Hands-on maintenance and troubleshooting of buffing/snuffing and plating machinery.
- Discussions and exercises related to environmental regulations and practices.
- Simulation of emergency response scenarios and first aid training.

Tools & Equipment needed:

- Safety equipment for advanced safety procedures.
- Maintenance and troubleshooting tools.
- Materials for environmental discussions and regulatory compliance.
- Simulation tools and first aid training materials.

Module No 5: OJT**Outcome:** Work in real job situation with special emphasis on basic safety and hazards in this domain**Practical Content:**

Assessor will check report prepared for this component of Practical training of the course and assess whether competency has been developed to work in the real job situation with special emphasis on basic safety and hazards in this domain. (The trainee is expected to undertake work in actual workplace under any supervisor / contractor for **60 Hours**.)

Module No 6: Employability Skills (60 Hrs)**Key Learning Outcomes****Introduction to Employability Skills**

Duration: 1.5 Hours

After completing this programme, participants will be able to:

1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship

Duration: 1.5 Hours

3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century

Duration: 2.5 Hours

5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills

Duration: 10 Hours

8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting

Duration: 2 Hours

11. Create a career development plan with well-defined short- and long-term goals

Communication Skills

Duration: 5 Hours

12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion

Duration: 2.5 Hours

15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy

Duration: 5 Hours

17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes, investments etc.
20. Discuss the legal rights, laws, and aids

Essential Digital Skills

Duration: 10 Hours

21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

Entrepreneurship

Duration: 7 Hours

26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per

requirement

29. Create a sample business plan, for the selected business opportunity

Customer Service

Duration: 5 Hours

30. Describe the significance of analyzing different types and needs of customers
 31. Explain the significance of identifying customer needs and responding to them in a professional manner.
 32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs

Duration: 8 Hours

33. Create a professional Curriculum Vitae (CV)
 34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
 35. Discuss the significance of maintaining hygiene and confidence during an interview
 36. Perform a mock interview
 37. List the steps for searching and registering for apprenticeship opportunities

Learning Outcome – Assessment Criteria

Module No.	Outcome	Assessment Criteria
1	Comprehend the leather tanning process with the proper utilization of common tools and equipment.	<p>After completion of this module students will be able to:</p> <p>1.1 Demonstrate the leather tanning process, including the significance of buffing/snuffing and plating in this process. 1.2 Apply safety protocols effectively, ensuring the safe handling of chemicals and operation of machinery in a tannery environment. 1.3 Identify and name the common tools and equipment used in buffing/snuffing and plating operations. 1.4 Explain the key environmental and sustainability considerations relevant to tannery operations. 1.5 Apply environmental and sustainability best practices in the context of tannery operations.</p>
2	Execute buffing/snuffing techniques and machine operations while ensuring thorough dedusting.	<p>After completion of this module students will be able to:</p> <p>2.1 Operate buffing/snuffing machinery, understanding the functions of its components and the settings required for various leather types. 2.2 Demonstrate competence in applying different buffing/snuffing techniques to leather, ensuring the desired outcomes are achieved. 2.3 Identify and address common defects and imperfections in leather during quality control and inspection processes. 2.4 Apply various buffing/snuffing techniques to different types of leather, including dedusting, and produce high-quality results. 2.5 Conduct thorough inspections of buffed leather</p>

Module No.	Outcome	Assessment Criteria
		products, ensuring they meet the specified quality standards, with particular attention to dedusting effectiveness.
3	Demonstrate plating processes utilizing appropriate machinery.	<p>After completion of this module students will be able to:</p> <p>3.1 Operate plating machinery proficiently, understanding the roles and functions of its components and adjusting settings as needed.</p> <p>3.2 Apply various plating techniques to leather surfaces, achieving the desired finishes effectively.</p> <p>3.3 Prepare leather surfaces for plating, ensuring they are adequately treated for optimal results.</p> <p>3.4 Identify and resolve common issues that may arise during plating and maintain the quality of plated leather products.</p> <p>3.5 Conduct quality control inspections of plated leather, verifying that they meet established standards and requirements.</p>
4	Apply safe working Practices	<p>After completion of this module students will be able to:</p> <p>3.1 Implement advanced safety procedures and precautions during buffing/snuffing and plating operations, prioritizing safety in all aspects of their work.</p> <p>3.2 Conduct maintenance and troubleshooting tasks on buffing/snuffing and plating machinery, ensuring they are properly maintained and operational.</p> <p>3.3 Apply environmental regulations and best practices, demonstrating a commitment to environmentally responsible tannery operations.</p> <p>3.4 effectively respond to emergency situations by following established procedures and providing basic first aid when required.</p> <p>3.5 Maintain a safe working environment, recognizing and mitigating potential safety hazards and environmental concerns.</p>
5	OJT	Assessor will check report prepared for this component of Practical training of the course and assess whether competency has been developed to work in the real job situation with special emphasis on basic safety and hazards in this domain. (The trainee is expected to undertake work in actual workplace under any supervisor / contractor for 60 Hours.)
6	Employability Skill	As per guided curriculum

List of Tools, Equipment & materials needed for 30 Trainees (Practical)

Sl No	Items Name	Specification	Qty
1	Buffing/snuffing Machine	Type: Rotary Buffing/snuffing Machine with Variable speed control, dust collection system	3
2	Dedusting Machine	Used after leather buffing/snuffing	1
3	Abrasive Wheels and Belts	Various grit sizes for different leather types (ex 220, 300, 400, 600, 800)	1/machine
4	Buffing/snuffing Compounds	Assorted compounds for various finishes	1
5	Buffing/snuffing Brushes	Different types for specialized finishes	3
6	Safety Gear	Gloves, goggles, aprons, respirators, ear protection	1 set
7	Quality Control Tools	Magnifying glasses, inspection checklists	3 set
8	Leather for Practice	Assorted types and qualities for training	1000 sqft of different leather
9	Materials for Practical Exercises	Sandpaper, masking tape, leather treatment chemicals	1 set for each machine
10	Plating Machine	Hydraulic plating machine with Adjustable pressure, temp and timer	3
11	Plate releasing Solutions	For various types for different finishes (e.g., chrome, VT leather)	1 lit/ machine
12	Plating Racks and Anodes	Assorted sizes and materials	1/ machine
13	Safety Gear	Gloves, goggles, aprons, respirators, ear protection	5 set
14	Quality Control Tools	Magnifying glasses, inspection checklists	5 set
15	Leather for Plating Practice	Assorted leather types and sizes	1000 sqft leather
16	Materials for Surface Preparation and Treatment	Abrasives, degreasers, pre-treatment chemicals	As per finish
17	Safety Equipment	Fire extinguishers, first aid kits, eye glass	3 set
18	Maintenance and Troubleshooting Tools	Basic hand tools, plating surface maintenance equipment	3 set
19	Materials for Environmental Discussions and Regulatory Compliance	Regulatory documents, environmental protection materials	2 set
20	First Aid Training Materials	First aid training kits	1 set
21	Safety Gear	Gloves, goggles, aprons, etc.	1 set
22	Basic Hand Tools Used in the Tanning Process	Knives, tester, screw driver, hammers	3 set
23	Models or Demonstrations of the Tanning Process	Charts, diagrams, physical models	1 set
24	Materials for Environmental Discussions and Sustainability Practices	Educational materials on eco-friendly tanning methods, recycling practices, and sustainability in the leather industry	1 set

Marks Distribution

Outcome	Outcome Code	Total Th marks	Total Pr Marks	Total OJT marks
Comprehend the leather tanning process with the proper utilization of common tools and equipment.	LEA/2205/OC1	30	160	0
Execute buffing/snuffing techniques and machine operations while ensuring thorough dedusting.	LEA/2205/OC2	50	180	0
Demonstrate plating processes utilizing appropriate machinery.	LEA/2205/OC3	40	160	0
Apply safe working Practices	LEA/2205/OC4	30	150	0
Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	LEA/2205/OC5	0	0	150
Employability Skills - 60 Hrs	DGT/VSQ/N0102	50	0	0