

**Syllabus for Cutter and Machine Skiving operator for Footwear**

<b>Course Name</b>	Cutter and Machine Skiving operator for Footwear
<b>Sector</b>	<b>Leather</b>
<b>Course Code</b>	<b>LEA/2024/CMOF/358</b>
<b>Level</b>	<b>3</b>
<b>Occupation</b>	Cutter and Machine Skiving operator for Footwear
<b>Job Description</b>	A Cutter and Machine Skiving operator for Footwear is responsible for preparing and processing raw materials for cutting operations in footwear production, ensuring the quality of cut products. Perform maintenance on cutting machines and conduct manual and machine-based footwear skiving operations, maintaining product quality, and ensuring the upkeep of the work area, tools, and equipment.
<b>Course Duration</b>	<b>Total Duration 330 Hrs (T- 60 , P- 150 , OJT-60 and ES-60)</b>
<b>Trainees' Entry Qualification</b>	Grade 10 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
<b>Trainers Qualification</b>	2 years Certificate in relevant subject with 2 years industrial experience 3 years diploma in relevant subject with 1-year industrial experience

<b>Module No.</b>	<b>Module name</b>	<b>Outcome</b>	<b>Theory (Hrs)</b>	<b>Practical (Hrs)</b>	<b>Total (Hrs) [Multiple of 30]</b>
1	Footwear Materials and Equipment Basics	Identify different types of leather footwear materials alongwith the functions of various equipment with proper safety and maintenance procedures.	10	20	30
2	Pattern Layout and Cutting Techniques	Cut the patterns on Leather footwear materials with minimal waste and maximal material efficiency to get the cost-effective utilization of materials.	20	40	60
3	Machine Skiving	Operate skiving machines with precise skives for different materials to ensure the components are ready	10	50	60

Module No.	Module name	Outcome	Theory (Hrs)	Practical (Hrs)	Total (Hrs) [Multiple of 30]
		for assembly with clean and polished edges.			
4.	Quality Assurance and Troubleshooting	Inspect cut and skived components for industry standards and maintain comprehensive records and documentation to enhance process improvement and quality control.	20	40	60
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
<b>TOTAL:</b>			<b>120</b>	<b>210</b>	<b>330</b>

## **SYLLABUS:**

### **Module No 1: Footwear Materials and Equipment Basics**

**Outcome:** Identify different types of leather footwear materials alongwith the functions of various equipment with proper safety and maintenance procedures.

#### **Theory Content:**

- Introduction to a variety of footwear materials, including leather, fabric, and synthetic materials.
- Overview of cutting and skiving machines specific to the footwear industry.
- Safety protocols and best practices in a workshop or manufacturing environment tailored for footwear production.
- Maintenance procedures specifically designed for footwear manufacturing equipment.

#### **Practical Content:**

- Techniques for identifying and handling different footwear materials.
- Operation and basic maintenance of footwear-specific cutting and skiving machines.
- Demonstration of safe practices in the handling of footwear materials and machines.
- Proper storage and organization of materials and tools in the context of footwear production.

#### **Tools & Equipment Needed:**

- Samples of diverse footwear materials (leather, fabric, etc.).
- Cutting knives and shears suitable for handling footwear materials.
- Safety gear (gloves, goggles, etc.) tailored for footwear industry tasks.
- Basic hand tools designed for the maintenance of footwear manufacturing equipment.

### **Module No 2: Pattern Layout and Cutting Techniques**

**Outcome:** Cut the patterns on Leather footwear materials with minimal waste and maximal material

efficiency to get the cost-effective utilization of materials.

**Theory Content:**

- Techniques for pattern development and transfer specific to footwear.
- Understanding various types of interlocking system in pattern nesting.
- Emphasizing the importance of minimizing material waste and optimizing efficiency in the context of footwear production.

**Practical Content:**

- Transferring patterns onto footwear materials with precision.
- Applying advanced cutting techniques tailored for leather footwear.
- Nesting and optimizing patterns on materials for efficient use.
- Calculating material requirements for specific footwear projects.

**Tools and Machinery:**

- Footwear-specific pattern templates and examples.
- Cutting mats and rulers designed for precision in footwear pattern cutting.
- Specialized marking and measuring tools relevant to footwear design.
- Tools such as scissors, cutters, and Hydraulic sewing arm cutting machines or mechanical cutting machine suited for cutting footwear materials.

**Module No 3: Machine Skiving**

**Outcome:** Operate skiving machines with precise skives for different materials to ensure the components are ready for assembly with clean and polished edges.

**Theory Content:**

- Understanding the pivotal role of skiving in footwear production.
- Exploration of different types of skiving machines and their integral components.
- Emphasizing the significance of edge folding for achieving a clean appearance.

**Practical Content:**

- Hands-on operation of skiving machines tailored for the footwear industry.
- Skiving materials to specific thickness or angle required for footwear production.
- Application of edge folding techniques for different footwear materials.
- Maintenance of machine settings to ensure consistent and precise skiving.

**Tools and Machinery:**

- Utilization of footwear-specific skiving machines, both manual and automated.
- Implementation of edge folding tools, including folding knives and machines.
- Use of measuring instruments such as thickness gauges for precision.
- Adherence to safety gear requirements for safe and efficient operation of skiving machines in the footwear industry.

**Module No 4: Quality Assurance and Troubleshooting**

**Outcome:** Inspect cut and skived components for industry standards and maintain comprehensive records and documentation to enhance process improvement and quality control.

**Theory Content:**

- Understanding quality standards and specifications relevant to the footwear industry.
- Recognizing common issues associated with cutting and skiving in footwear production.
- Importance of documentation and record-keeping for effective quality control.

#### **Practical Content:**

- Techniques for inspecting cut and skived components in the context of footwear production.
- Identifying and addressing common issues encountered in the footwear manufacturing process.
- Recording data systematically to facilitate process improvement and quality control.
- Suggesting and implementing improvements based on collected data to enhance footwear production quality.

#### **Tools and Machinery:**

- Utilization of inspection tools specific to footwear, such as magnifying glasses and digital microscopes.
- Application of quality control checklists and templates tailored for footwear manufacturing.
- Use of documentation tools, including notebooks and excel.
- Tools and materials necessary for implementing process improvements in the footwear production line.

#### **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	Identify different types of leather footwear materials alongwith the functions of various equipment with proper safety and maintenance procedures.	<p><b>After completion of this module students will be able to:</b></p> <p>1.1 Identify and differentiate various footwear materials commonly used in the industry.</p> <p>1.2 Operate and maintain cutting and skiving equipment while adhering to safety protocols.</p> <p>1.3 Handle and store materials to prevent damage, contamination, or waste.</p> <p>1.4 Describe the functions of equipment specific to the footwear industry.</p> <p>1.5 Recognize and address potential safety hazards in the workspace related to footwear materials and equipment.</p>
2	Cut the patterns on Leather footwear materials with minimal waste and maximal material efficiency to get the cost-effective utilization of materials.	<p><b>After completion of this module students will be able to:</b></p> <p>2.1 Transfer patterns onto footwear materials with precision and understand interlocking system.</p> <p>2.2 Demonstrate Cutting techniques to minimize material waste with accuracy and consistency.</p> <p>2.3 Optimize material usage, minimizing costs and reducing waste effectively.</p> <p>2.4 Arrange and nest patterns efficiently on materials to maximize yield.</p> <p>2.5 Troubleshoot and correct errors in pattern layout and cutting specific to the footwear industry.</p>
3	Operate skiving machines with precise skives for different materials to ensure the components are ready for assembly with clean and polished edges.	<p><b>After completion of this module students will be able to:</b></p> <p>3.1 Skive different materials to a specified thickness or angle consistently.</p> <p>3.2 Assess the quality of edge folding performed by students, ensuring clean edges for footwear components.</p> <p>3.3 Handle skiving machines, adjusting settings, and performing skiving operations in the context of the</p>

Module No.	Outcome	Assessment Criteria
		footwear industry. 3.4 Demonstrate the appropriate skiving parameter and techniques for various footwear materials. 3.5 Meet industry standards and specifications for skiving and edge folding in the footwear production process.
4	Inspect cut and skived components for industry standards and maintain comprehensive records and documentation to enhance process improvement and quality control.	<b>After completion of this module students will be able to:</b> 4.1 Inspect cut and skived components for defects, ensuring they meet quality standards in the footwear industry. 4.2 Identify and diagnose common issues that may occur during cutting and skiving processes specific to footwear production. 4.3 Troubleshoot and take corrective actions to address issues in the context of footwear manufacturing. 4.4 Maintain records and documentation for quality control and process improvement in footwear production. 4.5 Suggest and implement improvements in the cutting and skiving processes based on collected data and analysis of issues specific to the footwear industry.
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	Leather, and other upper material, etc.	Assorted materials for hands-on practice	Scrap leather big size 2 kg/student
2	Double side Cutting Knives and Single side Cutting Knives	High-quality, sharp blades for efficient cutting	1 knife/student
3	Safety Gear	Gloves, aprons, etc.	5 set
4	Hydraulic sewing arm Clicking Press	Hydraulic cutting press for precision cutting	3
5	Single Side Clicking Dies and Double Side Clicking Dies	High carbon steel Dies for cutting and shaping materials	1 set for a style
6	Basic Hand Tools	Tools for equipment maintenance and minor repairs	3 set
7	Pattern Templates and Examples	A variety of templates for different garment designs	3 set

Sl No	Items Name	Specification	Qty
8	Cutting Mats and Rulers	Self-healing mats for precision cutting	1/student
9	Marking and Measuring Tools	Tailor's chalk, measuring tapes, rulers	1/student
10	Scissors, Rotary Cutters, and Cutting Machines	High-quality scissors, rotary cutters, and fabric cutting machines	5 per /10 student
11	Skiving Machines (Manual and Automated)	Manual skivers with adjustable blades, automated skiving machines	3
12	Edge Folding Tools (Folding tools, Machines)	Various tools for folding like bone folder and edge finishing	5/10 student
13	Measuring Instruments (Thickness Gauges)	For precise measurement and skiving depth control	3
14	Inspection Tools (Magnifying Glasses)	For close examination of finished work	5 set
15	Quality Control Checklists and Templates	Standardized checklists and templates for evaluating work	5 set
16	Documentation Tools (Notebooks)	For recording progress and documenting projects	1 set
17	Tools and Materials for Process Improvements guidebook	Materials for implementing process improvements and adjustments	2 set

### Marks Distribution

Outcome	Outcome Code	Total Th marks	Total Pr marks	Total OJT marks
Identify different types of leather footwear materials along with the functions of various equipment with proper safety and maintenance procedures.	LEA/2206/OC1	40	120	0
Cut the patterns on Leather footwear materials with minimal waste and maximal material efficiency to get the cost-effective utilization of materials.	LEA/2206/OC2	40	170	0
Operate skiving machines with precise skives for different materials to ensure the components are ready for assembly with clean and polished edges.	LEA/2206/OC3	30	190	0
Inspect cut and skived components for industry standards and maintain comprehensive records and documentation to enhance process improvement and quality control.	LEA/2206/OC4	40	170	0
Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	LEA/2206/OC5	0	0	150
Employability Skills – 60 Hrs	DGT/VSQ/N0102	50	0	0