

**Syllabus For Footwear Stitching Mastery Program**

<b>Course Name</b>	<b>Footwear Stitching Mastery Program</b>
<b>Course Code</b>	<b>LEA/2023/FSMP/146</b>
<b>Sector</b>	<b>Leather</b>
<b>Level</b>	<b>3</b>
<b>Occupation</b>	<b>Footwear Stitching Operator</b>
<b>Job Description</b>	<b>Hand Stitching / Machine Stitching of Footwear</b>
<b>Course Duration</b>	<b>Total Duration 390 Hrs (T-90, P-180, OJT-60 and ES-60)</b>
<b>Trainees' Entry Qualification</b>	Grade 10 OR Grade 8 with two year of (NTC/ NAC) after 8 <sup>th</sup> 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>	BE/BTECH IN LEATHER TECHNOLOGY/ FOOTWEAR/ DIPLOMA IN FOOTWEAR 3 YEARS - BE/BTECH, 4 YEARS -DIPLOMA

**Structure of Course:**

<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	<b>Introduction to Stitching Operations</b>	Apply safe working practices with stitching tools and equipment.	10	20	30
2	<b>Hand Stitching Techniques for Footwear</b>	Apply hand stitching techniques to construct and repair footwear components while ensuring high quality standards.	0	30	30
3	<b>Machine Stitching Operations in Footwear</b>	Carryout machine stitching operations on various footwear components using appropriate sewing machines ensuring high quality standards.	0	60	60
4	<b>Maintenance of Work Area and Tools</b>	Maintains stitching and Equipment	20	10	30
5	<b>Compliance with Industry and Organizational Requirements</b>	Interpret and comply with industry regulations and standards related to	30	0	30

Module No.	Module name	Outcome	Theory (Hrs)	Practical (Hrs)	Total (Hrs) [Multiple of 30]
		stitching operations			
6	<b>Resource Utilization and Optimization</b>	Formulate the techniques to optimize the utilization of resources in stitching operations to improve the efficiency.	30	0	30
7	<b>Advanced Stitching Techniques and Troubleshooting</b>	Identify and implement advanced stitching techniques for specialized footwear components and troubleshoot stitching issues.	0	60	60
8	<b>OJT</b>		--	60	60
9	<b>Employability Skill</b>		60	--	60
<b>TOTAL:</b>			<b>150</b>	<b>240</b>	<b>390</b>

### Module 1: Introduction to Stitching Operations

Theory: 10 hours

- Understanding the basics of stitching operations in the footwear industry
- Overview of stitching terminology and techniques
- Introduction to stitching tools and equipment

Practical : 20 hours

- Familiarization with stitching tools and equipment
- Hands-on practice with basic stitching techniques
- Understanding workplace health and safety regulations
- Identifying potential hazards and implementing safety measures
- Importance of maintaining workplace security
- Demonstrating safe work practices during stitching operations
- Following safety protocols and procedures

### Module 2: Hand Stitching Techniques for Footwear

Practical: 30 hours

- Introduction to hand stitching techniques used in footwear production
- Understanding different types of stitches and their applications
- Hands-on practice of hand stitching techniques on leather and non-leather footwear components
- Developing accuracy and consistency in hand stitching
- Importance of maintaining quality in stitching operations
- Identifying common stitching defects and their causes
- Quality control techniques for stitching operations
- Implementing quality control measures during stitching operations
- Identifying and rectifying stitching defects through practical exercises

**Module 3: Machine Stitching Operations in Footwear**

Practical: 60 hours

- Introduction to different types of sewing machines used in footwear stitching operations
- Understanding machine setup, operation, and maintenance
- Operating stitching machines for different stitching operations on footwear components
- Practicing machine stitching techniques with guidance
- Importance of maintaining quality in stitching operations
- Identifying common stitching defects and their causes
- Quality control techniques for stitching operations
- Implementing quality control measures during stitching operations
- Identifying and rectifying stitching defects through practical exercises

**Module 4: Maintenance of Work Area and Tools**

Theory: 20 hours

- Importance of maintaining a clean and organized work area
- Proper storage and maintenance of stitching tools and equipment

Practical: 10 hours

- Cleaning and organizing the work area
- Maintenance and care of stitching tools and machines

**Module 5: Compliance with Industry and Organizational Requirements**

Theory: 30 hours

- Overview of industry regulations and standards for stitching operations
- Understanding organizational policies and procedures
- Applying industry and organizational requirements in stitching operations
- Following guidelines and protocols

**Module 6: Resource Utilization and Optimization**

Theory: 30 hours

- Importance of optimizing resources in stitching operations
- Techniques for efficient utilization of materials, time, and energy
- Implementing resource optimization strategies in stitching operations
- Minimizing material wastage and maximizing productivity

**Module 7: Advanced Stitching Techniques and Troubleshooting**

Practical: 60 hours

- Exploring advanced stitching techniques for specialized footwear components
- Troubleshooting common stitching issues
- Practicing advanced stitching techniques on challenging footwear components

- Identifying and resolving stitching problems through hands-on exercises

### **Learning Outcome – Assessment Criteria**

Module No.	Outcome	Assessment Criteria
1	Apply safe working practices with stitching tools and equipment.	<ul style="list-style-type: none"> <li>Maintain procedures to achieve a safe working environment in line with occupational health and safety</li> <li>Recognize and report all unsafe situations.</li> <li>Identify and take necessary precautions on fire and safety hazards</li> <li>Identify and operate safety alarms accurately.</li> <li>Identify basic first aid and use them under different circumstances.</li> <li>Identify different fire extinguisher and use the same as per requirement</li> <li>Maintain safety protocols and procedures during stitching operations through observation and checklist assessment.</li> <li>Identify and correctly use basic stitching tools and equipment during practical exercises.</li> <li>Execute basic stitching techniques through practical demonstrations and sample stitching tasks.</li> <li>Evaluate the safety practices and precautions during stitching operations through observation and checklist assessment</li> </ul>
2	Apply hand stitching techniques to construct and repair footwear components while ensuring high quality standards.	<ul style="list-style-type: none"> <li>Identify various hand stitching techniques through practical demonstrations and stitching exercises.</li> <li>Evaluate and apply different types of hand stitches appropriately in practical scenarios with maintaining the quality of stitching.</li> <li>Hands on practice of hand stitching techniques on leather and non leather footwear components.</li> <li>Identify and rectify common stitching defects encountered during hand stitching .</li> <li>Rectify the causes of common defects</li> <li>Implement quality control measures during stitching operations</li> <li>Maintain the quality control measures during stitching operations</li> </ul>

Module No.	Outcome	Assessment Criteria
3	Carryout machine stitching operations on various footwear components using appropriate sewing machines ensuring high quality standards.	<ul style="list-style-type: none"> <li>• Operate different types of sewing machines used in footwear stitching operations</li> <li>• Plan and deploy the machine setup, threading, and basic maintenance tasks.</li> <li>• Execute various machine stitching techniques on footwear components</li> <li>• Troubleshoot common issues related to machine stitching, make necessary adjustments, and produce quality stitching outputs.</li> <li>• Identify and rectify common stitching defects encountered during hand stitching.</li> <li>• Rectify the causes of common defects</li> <li>• Implement quality control measures during stitching operations</li> <li>• Maintain the quality control measures during stitching operations</li> </ul>
4	Maintains stitching and Equipment	<ul style="list-style-type: none"> <li>• Maintain a clean, organized the work area in efficient way.</li> <li>• Choose proper care, storage and maintenance practices for stitching tools and equipment.</li> <li>• Perform routine cleaning and maintenance tasks on sewing machines</li> <li>• Implement the procedures for ensuring the availability and readiness of tools and equipment</li> </ul>
5	Interpret and comply with industry regulations and standards related to stitching operations	<ul style="list-style-type: none"> <li>• Comply industry regulations and standards for stitching operations</li> <li>• Apply organizational policies, procedures, and guidelines for stitching operations</li> <li>• Maintain accurate records and documentation as required by industry and organizational requirements</li> <li>• Demonstrate the ethical practices and compliance with industry and organizational requirements through reflective assignments or practical scenarios.</li> </ul>
6	Formulate the techniques to optimize the utilization of resources in stitching operations to improve the efficiency.	<ul style="list-style-type: none"> <li>• Justify the importance of resource optimization in stitching operations</li> <li>• Implement Minimize material wastage and maximize productivity</li> <li>• Apply the techniques for planning and scheduling stitching operations effectively</li> <li>• Identify the opportunities for process improvements and resource optimization in stitching operations</li> </ul>

Module No.	Outcome	Assessment Criteria
7	Identify and implement advanced stitching techniques for specialized footwear components and troubleshoot stitching issues.	<ul style="list-style-type: none"> <li>• Demonstrate advanced stitching techniques for specialized footwear components</li> <li>• Troubleshoot and resolve stitching issues encountered during advanced stitching operations</li> <li>• Apply advanced stitching techniques to enhance the complexity and durability of footwear</li> <li>• Describe adaptation of stitching techniques to different materials and design requirements for optimal results.</li> </ul>
8	OJT	Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).
9	Employability Skill	As per NCVET guided curriculum

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

SI No	Items Name	Specification	Qty
1	Industrial Flat Bed Single-needle Lockstitch Machines (Leather)	<ul style="list-style-type: none"> <li>• Brand: Juki, Brother, Singer, or any other reliable brand</li> <li>• Speed: High-speed stitching capability</li> <li>• Stitch Length: Adjustable</li> <li>• Features: Reverse stitching function, needle positioning, adjustable presser foot pressure</li> <li>• Power saving motor</li> </ul>	10
2	Industrial Post bed Single-needle Lockstitch Machines (Leather)	<ul style="list-style-type: none"> <li>• Brand: Juki, Brother, Singer, Adler Durkopp, PFAFF or any other reliable brand or any other reliable brand</li> <li>• Speed: High-speed stitching capability</li> <li>• Stitch Length: Adjustable</li> <li>• Features: Reverse stitching function, needle positioning, adjustable presser foot pressure</li> <li>Power saving motor</li> </ul>	5
3	Industrial Cylinder bed Single-needle Lockstitch Machines with edge binder (Leather)	<ul style="list-style-type: none"> <li>• Brand: Juki, Brother, Singer, Adler Durkopp, PFAFF or any other reliable brand</li> <li>• Speed: High-speed stitching capability</li> <li>• Stitch Length: Adjustable</li> <li>• Features: Reverse stitching function, needle positioning, adjustable presser foot pressure</li> <li>Power saving motor</li> </ul>	5

SI No	Items Name	Specification	Qty
4	Industrial Flat bed Zigzag stitch Machines (Leather)	<ul style="list-style-type: none"> <li>Brand: Juki, Brother, Singer, Adler Durkopp, PFAFF any other reliable brand</li> <li>Speed: High-speed stitching capability</li> <li>Stitch Length: Adjustable</li> <li>Features: Reverse stitching function, needle positioning, adjustable presser foot pressure</li> </ul> Power saving motor	3
<b>Hand Tools</b>			
5	Leather cutting Scissors		30
6	Measuring Tapes		30
7	Leather Cutting Knife		30
8	Needles (assorted sizes) and Needle Threaders + Hand Sewing Needles (for moccasin)		30 each
9	Bobbins (assorted sizes) and Bobbin		30 each
10	Screwdrivers (assorted sizes)		30
11	Thread Cutters		30
12	Cutting Mats		15
13	Seam Gauges		30
14	Lubricating Oil for Sewing Machines		1 lit/ machine
15	Seam Rippers		30
16	Pointing Awls		30
17	Sewing Patterns and Instructional Guides		1 set each
<b>Materials</b>			
18	Leather (sufficient quantity for practice)		300 sqft
19	Non-Leather Fabrics		30 meter
20	Thread: Assorted Colors and Thicknesses Wax Thread for Moccasin stitching	<ul style="list-style-type: none"> <li>Vabdhaman A&amp;E or any other reliable brand</li> </ul>	2 spool for each student
21	Interfacing Materials	Toe puff and counter Siffener	¼ meter for each student
22	Lining Fabrics	cotton	1 meter for each student
23	Elastic Bands and velcro		1/2 meter/ each stu
24	Fabric Glue or Adhesive Tape	Neoprine/ Latex	5 lit each
25	Trims and Decorative Accessories (optional)	Eyelet, Lace	
26	Pattern Paper	A1 size	2 each

## Marks Distribution

Outcome	Outcome Code	Total Th marks	Total Pr marks	Total OJT marks
Apply safe working practices with stitching tools and equipment.	LEA/2208/OC1	40	110	0
Apply hand stitching techniques to construct and repair footwear components while ensuring high quality standards.	LEA/2208/OC2	0	130	0
Carryout machine stitching operations on various footwear components using appropriate sewing machines ensuring high quality standards.	LEA/2208/OC3	0	160	0
Maintains stitching and Equipment	LEA/2208/OC4	50	90	0
Interpret and comply with industry regulations and standards related to stitching operations	LEA/2208/OC5	60	0	0
Formulate the techniques to optimize the utilization of resources in stitching operations to improve the efficiency.	LEA/2208/OC6		0	0
Identify and implement advanced stitching techniques for specialized footwear components and troubleshoot stitching issues.	LEA/2208/OC7	0	160	0
Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	LEA/2208/OC8	0	0	150
Employability Skills – 60 Hrs	DGT/VSQ/N0102	50	0	0