

# Model Curriculum

## Specialized Sewing Machine Operator

**SECTOR: APPAREL, MADE-UPS AND HOME FURNISHING**  
**SUB-SECTOR: APPAREL / MADE-UPS / HOME FURNISHING**  
**OCCUPATION: SPECIALIZED STITCHING**  
**REF ID: AMH/Q2301**  
**NSQF LEVEL: 4**



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**APPAREL MADE-UPS HOME FURNISHING SECTOR SILL COUNCIL**

for the

### MODEL CURRICULUM

Complying to National Occupational Standards of

Job Role/ Qualification Pack: 'Specialized Sewing Machine Operator' QP No. 'AMH/Q2301 NSQF Level 4'

Date of Issuance: **December 15, 2015**

Valid up to: **December 15, 2016**

\* Valid up to the next review date of the Qualification Pack

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# Specialized Sewing Machine Operator

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Specialized Sewing Machine Operator”, in the “Apparel, Made Ups and Home Furnishing” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Sewing Machine Operator</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	Specialized Sewing Machine Operator ; AMH/Q2301		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	14-12 – 2016
<b>Pre-requisites to Training</b>	Preferably Class V		
<b>Training Outcomes</b>	1. Carry out different types of stitches using an specialized sewing machine		
	2. Contribute to achieve quality in sewing work		
	3. Maintain work area ,tools and machines		
	4. Maintain health safety and security at workplace		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Specialized Sewing Machine Operator” Qualification Pack issued by “APPAREL, MADE-UPS AND HOME FURNISHING SECTOR SKILL COUNCIL”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Introduction:</b> <b>Ice</b> <b>Breaking session.</b></p> <p><b>General</b> <b>Rules to be</b> <b>Followed in</b> <b>institute</b></p> <p><b>Carry out different</b> <b>types of stitches using</b> <b>a specialized sewing</b> <b>machine</b></p> <p><b>Theory Duration</b> (hh:mm) 30:00</p> <p><b>Practical Duration</b> (hh:mm) 70:00</p> <p><b>Corresponding NOS</b> <b>Code</b> AMH/N2301</p>	<p><b>The individual will be able to know and understand</b></p> <ul style="list-style-type: none"> <li>importance/type and terms associated with specialized sewing machines</li> <li>the range of techniques most suited for different types of apparels ,</li> <li>the fabrics/ apparels and the types of fabrics that require specialised stitching machine stitching</li> <li>the importance of machine , needle, needle guard , spool checks and safety procedures</li> </ul> <p><b>Prepare for stitching operations</b> <b>The individual /user will be able to:</b></p> <p><b>a.</b> have knowledge of fabrics/apparels and garments and types of fabrics/ apparels that require stitching by hand or machine stitching/ different types of apparels and their parts, stitch and seam classes</p> <p><b>b.</b> use specification chart</p> <p><b>c. identify</b> common factors affecting stitching / different types of defects</p> <p><b>d.</b> know different types of needle/ broken needle procedure/ thread thickness/ shades and sizes/ parts of needle</p> <p><b>e. method to</b> adjust the top tension</p> <p><b>f.</b> know the different types of attachments on the machine</p> <p><b>g. take</b> actions in the event of machine ceasing to function correctly</p> <p><b>h.</b> ensure the work area is free from hazards</p> <p><b>i.</b> follow the instructions and specifications given in the techpack to stitch</p> <p><b>j.</b> use the correct tools and equipments</p> <p><b>k.</b> check that equipment is safe and set up in readiness or use</p> <p><b>l.</b> check that the materials used are free from defects and meet the specification matching :  <ul style="list-style-type: none"> <li>Within a product</li> <li>Between a pair of products where applicable</li> </ul> </p> <p><b>m.</b> select the correct component parts for the style being worked on</p> <p><b>n.</b> carry out sew test</p> <p><b>o.</b> check needles threads regularly/checking fabric/component is correctly marked and pieces cut as required</p>	<p>Single Needle Lock Stitch (SNLS) SNLS Machine with UBT Over lock Machine (5 thread over lock machine) Button Hole Machine Button Attach Machine(optional) Double Needle Chain stitch Machine (12 Needle, Flat Bed), Flat Lock Machine, Feed of the Arm Machine, Bar Tack Machine, Bottom hemming Machine (3 Needle, 5 Thread), APW machine, Curtain Felling Machine, Tacking Machine, Other Specialised Machines, Straight Knife Cutting Machine, Sewing Machine Accessories and Attachments, Small Screw Driver, Round Knife Cutting Machine, Pressing Table And Iron Tools &amp; Equipment Computer Computer Peripherals Printer Photocopier Projector, Dexterity kit Design Patterns Shears (8-10 “ iron blade for cutting fabric) Scissors (plastic handled scissor for cutting paper) Trimmers Seam Ripper Tailor’s Chalk, Projector, Design Patterns, , tracing wheel, Pins &amp; safety pins Dress maker’s Pin Scale (metallic, 6” &amp; 12”)/ other scales Measuring Tape (0.5” width) Bobbin Bobbin Case Notcher (1/4 X 1/6 “ opening) Awl markers</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p><b>p.</b> ensure fabric pieces and lining are pinned or sew together as required and appropriately hung in readiness for assemble</p> <p><b>q.</b> report faults in the materials</p> <p><b>r.</b> conform to company quality standards and reporting any damaged work to the responsible person</p> <p><b>s.</b> follow company reporting procedures about defective tools and machines which affect work and report risks/problems likely to affect service to the relevant person promptly and accurately</p> <p><b>t.</b> operate machines safely and in accordance with guidelines</p> <p><b>u.</b> optimise the positing and the layout of materials to ensure smooth and rapid through put</p> <p><b>v.</b> check the equipment prior to making the stitching, including correct controls, correct attachments., correct needle &amp; thread</p> <p><b>w.</b> stitch the correct materials in the right sequence as required by the product specification as per the specified stitch type(stitch classes), hems &amp; stitches</p> <p><b>x.</b> ensure stitched product conforming to shape and size requirement and also in terms of labels and trimmings</p> <p><b>y.</b> inspect products against specifications</p> <p><b>z.</b> carry out alterations to meet customer requirements</p> <p><b>aa.</b> minimise and dispose the waste materials in approved manner</p> <p><b>ab.</b> Sew and apply trims by hand and machine</p> <p><b>ac.</b> Perform complex stitching operations with precision and accuracy</p>	<p>Seam Gauge Thread Clipper Thimble Personal Protective Equipment (Nose Mask &amp; Goggles) Dress Form (Various sizes of Male/Female/Kids) Hanger (wooden and plastic material) Template Cleaning Cloth Threads Hand needle (Various gauges) Machine Needle (Various Gauges) Needle Threader Garment sample Fabric Yardages Required Trims/Accessory Machine Folders and Attachments Tools for broken needle protocol (Magnet, Tweezers etc.) Student's Chair (with Table Arm) Table ( 30"X 20"X 30") Teacher's Table Teacher's Chair (revolving)</p>
2	<p><b>Contribute to Achieve quality in sewing work</b></p> <p><b>Theory Duration</b> (hh:mm) 20:00</p> <p><b>Practical Duration</b> (hh:mm) 60:00</p> <p><b>Corresponding NOS Code</b> AMH/N2302</p>	<p><b>A. The individual will have knowledge to achieve quality in stitching Operations by being able to:</b></p> <p><b>a.</b> identify types of stitches (over lock, flat lock etc) hems/finishes and purpose they serve</p> <p><b>b.</b> identify and use materials based on the specifications</p> <p><b>c.</b> take the necessary action when materials do not conform to quality standard</p> <p><b>d.</b> know different techniques and methods used to detect faults/ consequences of incorrect setting in specialized sewing machines</p>	<p>Equipments same as above</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p><b>e.</b> report and replace identified faulty materials and component parts which do not meet the specifications</p> <p><b>f.</b> identify modifiable defects and work on them</p> <p><b>g.</b> carry out work safely and at a rate which maintains the work flow</p> <p><b>h.</b> test, sort, track feed and examine work in progress</p> <p><b>i.</b> carry out quality checks at specified intervals according to instructions</p> <p><b>j.</b> have knowledge about the tolerances and applying them appropriately</p> <p><b>k.</b> make adjustments promptly to ensure the stitching work matches the specifications and the consequences of not rectifying problems</p> <p><b>l.</b> find faults in materials and components for creased, stained, damaged and incorrectly made-up component parts/ reasons for keeping stitched components out of contamination</p> <p><b>m.</b> mark, segregate rejects and place them in desired locations</p> <p><b>n.</b> maintain the required productivity and quality levels</p> <p><b>o.</b> complete and maintain documentation</p>	
3	<p><b>Maintain work area, tools and machines</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> AMH/N0102</p>	<p><b>The individual will know the methods to maintain work area, tools and machine by gaining knowledge to :</b></p> <p><b>a.</b> Maintain tools and equipments and handle them safely</p> <p><b>b.</b> Use materials to minimize waste</p> <p><b>c.</b> Carryout running maintenance within agreed schedules</p> <p><b>d.</b> Carry out maintenance and/or cleaning within one's responsibility</p> <p><b>e.</b> make sure that the correct machine guards are in place</p> <p><b>f.</b> Work in a comfortable position with the correct posture</p> <p><b>g.</b> Use cleaning equipment and methods appropriate for the work to be carried out</p> <p><b>h.</b> Dispose of waste safely in the designated location</p> <p><b>i.</b> Store cleaning equipment safely after use</p> <p><b>j.</b> Carryout cleaning according to schedules and limits of responsibility</p>	<p>Computer Computer Peripherals Computer Computer Peripherals Machinery tools and equipment like :Single Needle Lock Stitch (SNLS) SNLS Machine with UBT Over lock Machine (5 thread over lock machine) Button Hole Machine Button Attach Machine (optional) Pressing Table And Iron Tools &amp; Equipment, Shears (8-10 " iron blade for cutting fabric) Scissors (plastic handled scissor for cutting paper) Trimmers Seam Ripper Scale (metallic, 6" &amp; 12")/ other scales Measuring Tape (0.5" width) Bobbin Bobb in Case</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
			<p>Notcher (1/4 X 1/6 " opening) Awl markers Seam Gauge Thread Clipper Thimble, cleaning cloth, Hand needle (Various gauges) Machine Needle (Various Gauges) Needle Threader Machine Folders and Attachments, Tools for broken needle protocol (Magnet, Tweezers etc.)</p>
4	<p><b>Maintain health, safety and security at workplace</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> AMH/N0103</p>	<p><b>After going through the session , the individual will be able to know and learn the importance of maintaining health safety and security at Workplace by identifying the need to :</b></p> <p><b>a.</b> Comply with health and safety related instructions applicable to the workplace <b>b.</b> Use and maintain personal protective equipment as per protocol <b>c.</b> Maintain a healthy lifestyle and guard against dependency on intoxicants <b>d.</b> Follow environment management system related procedures <b>e.</b> Identify and correct if possible) malfunctions in machinery and equipment <b>f.</b> Report any service malfunctions that can not be rectified <b>g.</b> Store materials and equipment in line with manufacturer's and organizational requirements <b>h.</b> Safely handle and move waste and debris <b>i.</b> Minimize health and safety risks to self and others due to own actions <b>j.</b> Seek clarifications, from supervisors or other authorized personnel in case of perceived risks <b>k.</b> Monitor the workplace and work processes for potential risks and threats <b>l.</b> Carryout periodic walk-through to keep work area free from hazards and obstructions, if assigned <b>m.</b> Report hazards and potential risks/threats to supervisors or other authorized personnel <b>n.</b> Participate in mockdrills/ evacuation procedures organized at the workplace <b>o.</b> Undertake firstaid, fire-fighting and emergency response training, if asked to do so</p>	<p>Computer Computer Peripherals, tools and equipments as stated above and the subject related documents</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p><b>p.</b> Take action based on instructions in the event of fire,</p> <p><b>q.</b> Follow organization procedures</p>	
	<p><b>Total Duration:</b> <b>240Hrs</b></p> <p><b>Theory Duration</b> <b>70Hrs</b></p> <p><b>Practical Duration</b> <b>170Hrs</b></p>	<p><b>Unique Equipment Required</b> Single Needle Lock Stitch (SNLS), SNLS Machine with UBT Over lock Machine (5 thread over lock machine), Button Hole Machine, Button Attach Machine(optional), Double Needle Chain stitch Machine (12 Needle, Flat Bed), Flat Lock Machine, Feed of the Arm Machine, Bar Tack Machine, Bottom hemming Machine (3 Needle, 5 Thread), APW machine, Curtain Felling Machine, Tacking Machine, Other Specialised Machines, dexterity test kit</p>	

**Grand Total Course Duration: 240 Hours**

**(This syllabus/ curriculum has been approved by APPAREL, MADE-UP'S AND HOME FURNISHING SECTOR SKILL COUNCIL)**

## Trainer Prerequisites for Job role: “ Specialized Sewing Machine Operator” mapped to Qualification Pack: “AMH/Q2301”, version 1.0

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with Qualification Pack “AMH/Q2301”, version 1.0
2	<b>Personal Attributes</b>	The candidate should have an aptitude for conducting training , pre /post work to ensure competent , employable candidates at the end of training. Strong communication skills, interpersonal skills, ability to work as team; diligent and is passionate for maintaining the quality in content and training delivery methodology. Candidate should have basic understanding of English language; however this should not be a restrictive criterion as long as the candidate is willing and open to learn. He/she must be able to speak, read and write in the local language.
3	<b>Minimum Educational Qualifications</b>	Candidate should have a minimum qualification level of XII pass (14 years of schooling) from any board and discipline. The candidate should have a good understanding of basic mathematical functions. ITI/AMT, or certificate holders from NIFT, or any other polytechnic or institute ,who has been working in the industry for some time and have basic knowledge of the above mentioned.
4a	<b>Domain Certification</b>	Certified for Job Role: “Specialized Sewing Machine Operator” mapped to QP: “AMH/Q2301”, version 1.0. Minimum accepted score as per SSC guidelines is 90%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402” with scoring of minimum 80%.
5	<b>Experience</b>	The candidate should have a minimum of 4-6 years of factory experience on handling various types of sewing machines and their usage.

## Annexure: Assessment Criteria

<b>Assessment Criteria for Specialized Sewing Machine Operator</b>	
<b>Job Role</b>	<b>Specialized Sewing Machine Operator</b>
<b>Qualification Pack</b>	<b>AMH/Q2301, version 1.0</b>
<b>Sector Skill Council</b>	<b>APPAREL, MADE-UP'S AND HOME FURNISHING</b>

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 70% aggregate in QP
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

		Total Marks	Out of	Marks Allocation		
				Theory	Skills Practical	ViVa
<b>1.AMH/N2301 Carryout different types of stitches using an specialised sewing machine</b>	1) Make sure the work area is free from hazards	<b>140</b>	8	2	3	3
	2) Follow the instructions & specifications given in The Tech pack to stitch the sample		7	2	4	1
	3) Ask questions to obtain more information on tasks when the instructions you have are unclear		5	2	1	2
	4) Agree and review your agreed upon work targets With your supervisor and check for special instructions, if any		5	1	3	1
	5) Use the correct tools and equipments		4	1	2	1
	6) Check that equipment is safe and set up in readiness for use		4	1	2	1
	7) Select the correct component parts for the style being worked upon Being worked on		5	1	3	1
	8) Check that the materials to be use dare free from faults Faults		6	1	3	2
	9) Ensure the materials used meet the specification matching a) Within a product b) Between a pair of products where applicable		5	1	3	1
	10) Carry out test sews		5	1	3	1
	11) Check needles and threads regularly		5	1	3	1
	12) Check if fabric / Component is correctly marked And pieces cut as required		4	1	2	1
	13) Fabric pieces and linings are pinned or sewn Together as required, and appropriately hung in readiness for assembly.		5	1	3	1
	14) Report faults in the materials		5	1	2	2
	15) Conform to company quality standards		6	3	1	2
	16) Report any damaged work to the responsible person		4	1	2	1
	17) Follow company reporting procedures about defective tools and machines which affect work and report risks/ problems likely to affect services to the relevant person promptly and accurately		5	2	2	1

		Total Marks	Out of	Marks Allocation		
				Theory	Skills Practical	ViVa
	18) Operate machines safely and in accordance with Guidelines		6	1	4	1
	19) Optimize the positioning and layout of materials to ensure smooth and rapid throughput		5	2	2	1
	20) Check the equipment prior to making the stitching, including correct controls, correct attachments, correct needle & thread		6	1	4	1
	21) Stitch the correct materials in the right sequence as required by the product specification as per the specified stitch type (stitch classes), hems & seams		5	1	3	1
	22) Ensure stitched product conforms to shape and Size requirement		4	1	2	1
	23) Ensure stitched products meets specification in Terms of labels and trimmings		4	1	2	1
	24) Inspect stitched products against specifications		4	1	2	1
	25) Carryout alterations to meet customer Requirements		5	1	3	1
	26) Minimise and dispose the waste materials in the Approved manner		5	1	2	2
	27) Sew and apply trims by hand and machine		4	1	2	1
	28) Perform complex stitching operations with precision & accuracy		4	1	2	1
	<b>Total</b>		<b>140</b>	<b>35</b>	<b>70</b>	<b>35</b>
<b>2. AMH/ N2302 Contribute to achieve quality in sewing work</b>	1) Identify and use materials required based on the specifications		7	2	3	2
	2) Take the necessary action when materials do not Conform to quality standards		7	2	3	2
	3) Report and replace identified faulty materials and Component parts which do not meet specification		7	2	4	1
	4) Identify modify abled effects and rework on them		7	2	4	1
	5) Carry out work safely and at a rate which maintains Workflow		7	1	5	1



		Total Marks	Out of	Marks Allocation		
				Theory	Skills Practical	ViVa
	PC11. Use cleaning equipment and methods appropriate For the work to be carried out		4	2	1	1
	PC12. Dispose of waste safely in the designated location		3	1	1	1
	PC13. Store cleaning equipment safely after use		3	1	1	1
	PC14. Carry out cleaning according to schedules and limits of responsibility		3	1	1	1
	<b>Total</b>		<b>50</b>	<b>15</b>	<b>20</b>	<b>15</b>
<b>4. AMH/ N0103 Maintain health, safety and security at workplace</b>	PC1. Comply with health and safety related instructions applicable to the workplace.	<b>60</b>	3	1	1	1
	PC2. Use and maintain personal protective equipment as per protocol		3	2	1	1
	PC3. Carry out own activities in line with approved Guidelines and procedures		4	2	1	1
	PC4. Maintain a healthy life style and guard against Dependency on intoxicants		4	2	1	1
	PC5. Follow environment management system related procedures		3	1	1	1
	PC6. Identify and correct (if possible) malfunctions in Machinery and equipment		4	1	2	1
	PC7. Report any service malfunctions that cannot be rectified		3	1	1	1
	PC8. Store materials and equipment in line with manufacturer's and organisational requirements		3	1	1.5	0.5
	PC9. Safely handle and move waste and debris		4	1	1	1
	PC10. Minimize health and safety risks to self and others due to own actions		3	1	1	1
	PC11. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks		4	1	2	1
	PC12. Monitor the work place and work processes for potential risks and threats		3	1	1	1
	PC13. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		3	1	1.5	0.5
	PC14. Report hazards and potential risks/threats to super visors or other authorized personnel		3	1	1	1

		Total Marks	Out of	Marks Allocation		
				Theory	Skills Practical	ViVa
	PC15. Participate in mock drills/ evacuation procedures organized at the workplace		3	0.5	2	0.5
	PC16. Under take first aid, fire-fighting and emergency response training, if asked to do so		4	1	2.5	0.5
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		3	0.5	2	0.5
	PC18. Follow organisation procedures for shutdown and evacuation when required		3	1	1.5	0.5
	<b>Total</b>		<b>60</b>	<b>20</b>	<b>25</b>	<b>1</b>
	<b>Grand Total</b>		<b>350</b>	<b>90</b>	<b>175</b>	<b>85</b>



**Apparel Made-ups and Home Furnishing Sector Skill Council**  
Apparel House, Institutional Area, Sector-44, Gurgaon-122003, Haryana