

Model Curriculum

Fitter - Weaving preparatory

SECTOR: TEXTILE

SUB-SECTOR: WEAVING - TEXTILES

OCCUPATION: MAINTENANCE - WEAVING MACHINES

REF ID: TSC/Q2401

NSQF LEVEL: 4

VERSION: 3.0



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

TEXTILE SECTOR SKILL COUNCIL
for the

MODEL CURRICULUM

Complying to National Occupational Standards of Job Role/ Qualification Pack: Fitter - Weaving
preparatory QP No. 'TSC/Q 2401' NSQF Level 4

Date of Issuance: **January, 27th, 2022**

Valid up to: **January, 27th, 2025**

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



(Dr. Swapna Mishra)
Director (C&T)
(Textile Sector Skill Council)

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Fitter - Weaving preparatory

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Qualifications Pack – Fitter – Weaving preparatory”, in the “Textile” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Qualifications Pack – Fitter - Weaving preparatory		
Qualification Pack Name & Reference ID.	Qualifications Pack – Fitter - Weaving preparatory TSC/Q2401, version 3.0		
Version No.	3.0	Version Update Date	27.01.2022
Pre-requisites to Training	<ul style="list-style-type: none"> • 11th grade pass with no experience (OR) • Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma with no experience (OR) • 10th grade pass plus 1-year NTC/ NAC with no experience (OR) • 8th grade pass plus 2-year NTC plus 1 Year NAC with no experience (OR) • 8th pass plus 1-year NTC plus 1-Year NAC plus CITS with no experience (OR) • 10th grade pass and pursuing continuous schooling (OR) • 10th Grade Pass with 2 year relevant experience (OR) • Previous relevant Qualification of NSQF Level 3.0 with minimum education as 5th Grade pass (OR) • Previous relevant Qualification of NSQF Level 3.5 with 1 year relevant experience 		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Perform taking charge of shift and handing over shift • Perform various maintenance activity in Weaving Preparatory machines • Maintain work area, tools and machines • Gain behavioral skill for team working • Maintain health, safety and security at work place • Comply with industry and organizational requirement 		

This course encompasses 6 out of 6 National Occupational Standards (NOS) of “Qualifications Pack Fitter - Weaving preparatory” Qualification Pack issued by “TSC: Textile Sector Skill Council”

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Taking charge of shift and handing over shift to Fitter – Weaving Preparatory Theory Duration (hh:mm) 30:00 Practical Duration (hh:mm) 60:00 Corresponding NOS Code TSC/N 2401	<ul style="list-style-type: none"> Gain knowledge about general discipline Gain knowledge about the basic skills of communication Understand the role of Fitter – Weaving Preparatory Perform tasks while taking charge of shift and handing over shift 	<u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector
2	Maintain Weaving Preparatory Machines Theory Duration (hh:mm) 60:00 Practical Duration (hh:mm) 180:00 Corresponding NOS Code TSC/N 2402	<ul style="list-style-type: none"> Gain knowledge on machine parts & its function Gain knowledge on maintenance of weaving preparatory machines Perform setting based on process parameters of fabric Gain knowledge on cleaning procedure of weaving preparatory machines Monitor weaving preparatory machine condition and availability of Spares 	<u>1. common for every batch:</u> poster/video visuals for work method <u>2. Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector
3	Maintain work area, tools and machines Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code TSC/N 9001	<ul style="list-style-type: none"> Gain knowledge on Housekeeping system Identify and know unique functions of basic hand tools like cleaning hook, cleaning stick, bag, etc. Handling equipment importances Perform maintenance activities for handling equipment 	<u>1. common for every batch:</u> poster/video visuals for work method <u>2. Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector

4	<p>Working in a team</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code TSC/N 9002</p>	<ul style="list-style-type: none"> Understand the importance of team work Knowledge about the basic requirements for team working 	<p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p>
5	<p>Maintain health, safety and security at work place</p> <p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code TSC/N 9003</p>	<ul style="list-style-type: none"> Knowledge about the general safety Rules Knowledge about the importance of personal protective equipment like apron, cap, earplugs, nose mask etc. and their application under different working conditions. Gain knowledge on various health hazards relevant to workplace and basic first aid training. Identify and select right equipment such as fire extinguisher & based on type of fire. Become good practice on first aid, fire fighting etc. 	<p>1. A sample of following items for each trainee: apron, head cap, nose mask, ear plug, shoe, 2. common for every batch: first aid materials, fire extinguisher, work method posters/pictures, 3. <u>Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
6	<p>Comply with industry and organisational requirement</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code TSC/N 9004</p>	<ul style="list-style-type: none"> Know about organizational and industry standards Know the requirements for self-development Gain knowledge on Organizational & Industry standards 	<p><u>Class room requirements:</u> 25 people seating capacity with a screen and projector</p>

7	<p>Employability Skills (30 Hours)</p> <p>Theory Duration (hh:mm) 12:00</p> <p>Practical Duration (hh:mm) 18:00</p>	<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements. • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Show how to practice different environmentally sustainable practices • Discuss 21st century skills. • Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations. • Use appropriate basic English sentences/ phrases while speaking • Demonstrate how to communicate in a well -mannered way with others. • Demonstrate working with others in a team • Show how to conduct oneself appropriately with all genders and PwD • Discuss the significance of reporting sexual harassment issues in time • Discuss the significance of using financial products and services safely and securely. • Explain the importance of managing expenses, income, and savings. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws • Show how to operate digital devices and use the associated applications and features, safely and securely • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely. • Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges. • Differentiate between types of customers • Explain the significance of identifying customer needs and addressing them • Discuss the significance of maintaining hygiene and dressing appropriately. • Create a biodata • Use various sources to search and apply for jobs • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Discuss how to search and register for apprenticeship opportunities. 	<p>Class room requirements: 25 people seating capacity with a screen and projector</p>
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<p>Total Duration:</p> <p>Theory Duration 132:00</p> <p>Practical Duration 318:00</p>	<p>Unique Equipment Required: Apron, head cap, nose mask, earplug, shoe, Maintenance Kit, Measuring Guages, Pen & Pencil</p>
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Grand Total Course Duration: 450 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by TSC: Textile Sector Skill Council)

Trainer Prerequisites for Job role: “Fitter - Weaving Preparatory ” mapped to Qualification Pack: “Fitter - Weaving Preparatory /TSC Q 2401, Version 3.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “Fitter - Weaving Preparatory /TSC Q 2401,
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organized and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	<ul style="list-style-type: none"> Basic Literacy and Numeracy
4a	Domain Certification	Certified for Job Role: “Fitter - Weaving Preparatory ” mapped to QP: “Fitter-Weaving Preparatory TSC Q2401, Version 3.0”, with atleast 80% score
4b	Platform Certification	Required that the Trainer is certified for MEP/Q2601 Job Role: “Trainer” with atleast 80% score
5	Experience	4 years experience in specific sector as a trainer with 1 year as Fitter

Employability Trainer Prerequisites

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate/CITS	Any Discipline			2	Teaching Experience	Prospective ES trainer should: <ul style="list-style-type: none"> have good communication skills be well versed in English have digital skills have attention to detail be adaptable have willingness to learn
Current ITI Trainers	Employability Skills Training (3 days full-time course done between 2019-2022)					
Certified current EEE trainers (155 hours)	from Management SSC (MEPSC)					
Certified Trainer	Qualification Pack: Trainer (MEP/Q0102)					

2. TSC/N2402 (Maintain weaving preparatory machines)	PC1. Check the condition of the running beams & machine performance of both warping and sizing machines. also, should check for any abnormal sound/ noise in all the warping and sizing machines	300	6	2	4	0
	PC2. check whether all the stop motions work in good condition		6	2	4	0
	PC3. check the cleanliness of the machines and other work areas		6	2	4	0
	PC4. check whether any spare/raw material/ tool /any other material is thrown under the machines or in the other work areas		6	2	4	0
	PC5. Plan preventive maintenance.		6	3	3	0
	PC6. ensure thorough cleaning of all the warping machines		6	2	2	2
	PC7. check all the settings in the stop motions and correct the same in case of any deviation		6	3	3	0
	PC8. check the brake drum setting and correct the same in case of any deviation		6	3	3	0
	PC9. check the condition of the “ counter meter “ and change it whenever necessary		6	2	2	2
	PC10. check the comb condition and change it whenever necessary		6	2	2	2
	PC11. check the empty warping beams and ensure that all the bolts are tightly fixed		6	2	2	2
	PC12. check the empty warping beams and ensure that the beam flanges are not bent and are in good condition		6	2	2	2
	PC13. ensure that correct tare weights of the empty warping beams are written on the corresponding empty warping beams		6	2	2	2
	PC14. ensure that the hand knitters are in good working condition		6	2	4	0
	PC15. ensure that the air compressor is in good working condition		6	2	4	0
	PC16. ensure that water is draining out of the compressor, whenever required		6	2	4	0
	PC17. check the air compressor line and ensure that there is no leakage in compressor air		6	2	2	2

PC18. ensure proper lubrication (oiling & greasing) in the warping machines	6	2	4	0
PC19. ensure that all the bolts in the warping machines are tightly fixed	6	2	4	0
PC20. ensure that all the bolts in the warping machines are tightly fixed	6	2	4	0
PC21. ensure that there is no leakage of oil in the warping machines	6	2	2	2
PC22. ensure that oil is changed in the warping machines, whenever required	6	2	2	2
PC23. ensure that hydraulic pressure is maintained in all the warping machines	6	0	4	2
PC24. ensure that all the motors in all the warping machines are in good working condition	6	0	4	2
PC25. ensure thorough cleaning of sizing creel area, sizing cylinders, size cooker, size storage vessel, sow boxes and all other parts of the sizing machine	6	2	2	2
PC26. ensure proper lubrication (oiling & greasing) is done to the whole sizing machine	6	0	6	0
PC27. ensure that there is no leakage of oil in the sizing machine	6	0	6	0
PC28. ensure that oil is changed whenever required in the sizing machine	6	0	6	0
PC29. ensure that all the bolts in the sizing machine are fixed tightly	6	0	6	0
PC30. Attend breakdowns immediately.	6	3	3	0
PC31. ensure that the hydraulic rollers , are in good working condition	5	2	3	0
PC32. ensure that the beam flanges are free from any damage	6	3	3	0
PC33. ensure that there is no bend in the beam flanges	6	3	3	0
PC34. ensure that there is no steam leakage	6	3	3	0
PC35. ensure that all the motors in the cooking vessel , storage vessel , sizing creel , sizing machine etc. are in good working condition	5	2	3	0
PC36. ensure proper functioning of moisture control	6	3	3	0

PC37. ensure that stretch control is in proper condition	6	2	4	0
PC38. ensure that the pump motor is in good working condition	6	2	4	0
PC39. check the “ shore hardness” in the squeeze rollers and act as per the advice of the higher authority	5	2	3	0
PC40. ensure that the comb is in good working condition	6	2	4	0
PC41. ensure that the boiler is in good working condition	6	2	4	0
PC42. ensure that there is no steam leakage anywhere in the line	6	2	4	0
PC43. ensure that there is no leakage in the cooker vessel , storage vessel sow boxes etc.	5	2	3	0
PC44. ensure that all the weighing machines are in good working condition	6	2	4	0
PC45. ensure and maintain the required flange distance as per the instructions given for the running program	6	2	4	0
PC46. ensure that the bolts are tight in the empty beams, before they are taken for sizing	6	2	4	0
PC47. ensure that the empty beams are cleaned properly so that the “centre beam oil” complaint is not there in weaving, particularly in the looms which are operated with “ twin beams”	5	1	4	0
PC48. give preference to safety	6	2	4	0
PC49. ensure that no raw material/ cloth/ spare/ tool / any other material is thrown under/ near the machines or in other work areas	6	0	6	0
PC50. Ensure that any major machine faults, is immediately reported to the superiors.	6	0	6	0
PC51. ensure that all the warping machines and sizing machines work without any problem, before leaving the work spot for the day	5	3	2	0
Total	300	94	182	24
Weightage %		31%	61%	8%

3.TSC/N 9001 (Maintain work area, tools and machines)	PC1. handle materials, machinery, equipment and tools with care and use them in the correct way	50	4	2	1	1
	PC2. use correct lifting and handling procedures		4	2	1	1
	PC3. use materials to minimize waste		3	1	1	1
	PC4. maintain a clean and hazard free working area		3	1	1	1
	PC5. maintain tools and equipment		4	1	2	1
	PC6. carry out running maintenance within agreed schedules		4	2	1	1
	PC7. carry out maintenance and/or cleaning within one's responsibility		4	2	1	1
	PC8. report unsafe equipment and other dangerous occurrences		4	2	1	1
	PC9. ensure that the correct machine guards are in place		3	1	1	1
	PC10. work in a comfortable position with the correct posture		3	1	1	1
	PC11. use cleaning equipment and methods appropriate for the work to be carried out		3	1	1	1
	PC12. dispose of waste safely in the designated location		4	2	1	1
	PC13. store cleaning equipment safely after use		3	1	1	1
	PC14. carry out cleaning according to schedules and limits of responsibility		4	2	1	1
	Total		50	21	15	14
	Weightage %			42%	30%	28%
4. TSC/N 9002 (Working in a team)	PC1. be accountable to the own role in whole process	50	5	1	3	1
	PC2. perform all roles with full responsibility		4	1	2	1
	PC3. be effective and efficient at workplace		4	2	1	1
	PC4. properly communicate about company policies		4	1	1	2
	PC5. report all problems faced during the process		4	1	1	2
	PC6. talk politely with other team		4	1	1	2

	members and colleagues					
	PC7. submit daily report of own performance		5	2	2	1
	PC8. adjust in different work situations		4	1	2	1
	PC9. give due importance to others' point of view		4	1	1	2
	PC10. avoid conflicting situations		4	2	1	1
	PC11. develop new ideas for work procedures		4	2	1	1
	PC12. improve upon the existing techniques to increase process efficiency		4	2	1	1
	Total		50	17	17	16
	Weightage %			34%	34%	32%
5. TSC/N 9003 (Maintain health, safety and security at work place)	PC1. Comply with health and safety related instructions applicable to the workplace	100	5	2	2	1
	PC2. Use and maintain personal protective equipment as per protocol		5	2	2	1
	PC3. Carry out own activities in line with approved guidelines and procedures		4	1	2	1
	PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants		4	1	2	1
	PC5. Follow environment management system related procedures		4	1	2	1
	PC6. Identify and correct (if possible) malfunctions in machinery and equipment		5	2	2	1
	PC7. Report any service malfunctions that cannot be rectified		4	1	2	1
	PC8. Store materials and equipment in line with manufacturer's and organizational requirements		4	2	1	1
	PC9. Safely handle and move waste and debris		4	2	1	1
	PC10. Minimize health and safety risks to self and others due to own actions		5	2	2	1
	PC11. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks		4	0	2	2
	PC12. Monitor the workplace and work processes for potential risks and threats		5	2	2	1
	PC13. Carry out periodic walk-through to keep work area free from hazards and		5	2	2	1

	obstructions, if assigned					
	PC14. Report hazards and potential risks/ threats to supervisors or other authorized personnel		4	2	1	1
	PC15. Participate in mock drills/ evacuation procedures organized at the workplace		4	2	2	0
	PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so		5	2	2	1
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		5	2	2	1
	PC18. Follow organization procedures for shutdown and evacuation when required		4	1	2	1
	PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry		4	1	2	1
	PC20. recognize other possible security issues existing in the workplace		4	1	2	1
	PC21. recognize different measures to curb the hazards		4	1	2	1
	PC22. communicate the safety plan to everyone		4	1	2	1
	PC23. attach disciplinary rules with the implementation		4	1	2	1
	Total		100	34	43	23
	Weightage %			34%	43%	23%
6. TSC/N 9004 (Comply with industry and organizational requirement)	PC1. perform own duties effectively	50	4	2	1	1
	PC2. take responsibility for own actions		4	2	1	1
	PC3. be accountable towards the job role and assigned duties		4	1	2	1
	PC4. take initiative and innovate the existing methods		3	1	1	1
	PC5. focus on self-learning and improvement		4	2	1	1
	PC6. co-ordinate with all the team members and colleagues		4	2	1	1
	PC7. communicate politely		4	1	1	2
	PC8. avoid conflicts and miscommunication		4	2	1	1

	PC9. know the organizational standards	4	1	2	1
	PC10. implement them in your performance	4	2	1	1
	PC11. motivate others to follow them	3	1	1	1
	PC12. know the industry standards	4	1	3	0
	PC13. align them with organization standards	4	1	2	1
	Total	50	19	18	13
	Weightage %		38%	36%	26%

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory Marks	Practical Marks	Viva Marks
7. DGT/VSQ/N0101 – Employability Skills	Introduction to Employability Skills			1	1	-
	1. understand the significance of employability skills in meeting the job requirements					
	Constitutional values – Citizenship			1	1	-
	2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices.					
	Becoming a Professional in the 21st Century			1	3	-
	3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.					
	Basic English Skills			2	3	-
	4. speak with others using some basic English phrases or sentences					
	Communication Skills			1	1	-
	5. follow good manners while communicating with others					
	6. work with others in a team					
	Diversity & Inclusion			1	1	-
	7. communicate and behave appropriately with all genders and PwD					
	8. report any issues related to sexual harassment					
	Financial and Legal Literacy			3	4	-
	9. use various financial products and services safely and securely					
	10. calculate income, expenses, savings etc.					
	11. approach the concerned authorities for any exploitation as per legal rights and laws					

	Essential Digital Skills			4	6	-
	12. operate digital devices and use its features and applications securely and safely					
	13. use internet and social media platforms securely and safely					
	Entrepreneurship			3	5	-
	14. identify and assess opportunities for potential business					
	15. identify sources for arranging money and associated financial and legal challenges					
	Customer Service			2	2	-
	16. identify different types of customers					
	17. identify customer needs and address them appropriately.					
	18. follow appropriate hygiene and grooming standards.					
	Getting ready for apprenticeship & Jobs			1	3	-
	19. create a basic biodata					
	20. search for suitable jobs and apply					
	21. identify and register apprenticeship opportunities as per requirement					
	NOS Total		50	20	30	-
	Grand Total		700	235	355	110



Textile Sector Skill Council

15th Floor, Nirmal Tower, Barakhamba Road, New Delhi-110001