



Model Curriculum

QP Name: Assistant Design Maker - Textiles

QP Code: TSC/Q7403

QP Version: 3.0

NSQF Level: 3

Model Curriculum Version: 1.0

Textile Sector Skill Council || Textile Sector Skill Council (TSC) 14H, 14th Floor, Hansalaya Building, 15,
Barakhamba Road, New Delhi - 110 001
Office: +91-11-43536355-7 Email: info@texskill.in

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Training Parameters

Sector	Textiles
Sub-Sector	Handloom & Khadi
Occupation	Designer
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7318.99
Minimum Educational Qualification and Experience	<ul style="list-style-type: none"> • Grade 9 with No Experience (OR) • Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience (OR) • 8th grade pass with 1 year of relevant experience (OR) • 5th grade pass with 4 years of relevant experience (OR) • Ability to read and write with 5 years of experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	30.09.2021
Next Review Date	30.09.2024
NSQC Approval Date	
QP Version	3.0
Model Curriculum Creation Date	30.09.2021
Model Curriculum Valid Up to Date	30.09.2024
Model Curriculum Version	1.0
Minimum Duration of the Course	330 Hours
Maximum Duration of the Course	330 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

- Collect the pre-requisites for creating the design.
- Prepare different types of jacquard design.
- Develop and edit jacquard design manually or using Computer-Aided Designing software.
- Maintain work area, tools and machines as per guidelines.
- Follow greening and energy conservation activities as per guidelines.
- Describe the importance of health, safety and security at workplace.
- Communicate and work effectively in a team.
- Comply with organizational and industry standards.

Compulsory Modules

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
TSC/N7403: Develop jacquard design manually or using Computer-Aided Design software Version 2.0 NSQF Level –4	60:00	150:00	-	-	210:00
Module 1: Prepare jacquard design	60:00	150:00	-	-	210:00
TSC/N9015: Follow machine, safety & organizational guidelines in textile sector Version 1.0 NSQF Level –4	25:00	50:00	-	-	75:00
Module 2: Maintaining the work area, tools and machines	02:00	08:00	-	-	10:00
Module 3: Greening and energy conservation in textile sector	02:00	08:00	-	-	10:00

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Module 4: Health, safety and emergency response at workplace	15:00	20:00	-	-	35:00
Module 5: Organizational standards and Policies	06:00	14:00	-	-	20:00
TSC/N9016:Follow teamwork, adaptability and communication guidelines in textile sector Version 1.0 NSQF Level –4	05:00	10:00	-	-	15:00
Module 6: Teamwork, trust and communication	03:00	07:00	-	-	10:00
Module 7: Adaptability	02:00	03:00	-	-	05:00
DGT/VSQ/N0101 – Employability Skills Version 1.0 NSQF Level – 3	12:00	18:00	-	-	30:00
Module 8: Employability Skills	12:00	18:00	-	-	30:00
Total Duration	102:00	228:00	-	-	330:00

Module Details

Module 1: Prepare jacquard design

Mapped to TSC/N7403, v2.0

Terminal Outcomes:

- Demonstrate the process of analysing the client requirement for jacquard design development.
- Demonstrate the steps involved in developing the jacquard design as per the final fabric requirement manually or by using CAD software.

Duration: 60:00	Duration: 150:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Classify various tools used in jacquard fabric designing such as pencil, pen, graph paper of various counts, eraser, scale, computer, scanner, CAD software, etc. as well as their maintenance process. • Discuss the standards, policies, hierarchy line, reporting methods to be followed in the workplace. • Discuss the different patterns of designs as well as weaves that can be used in jacquard fabrics. • Discuss the functionality, cost, tools and common troubleshooting methods of textile designing softwares available in the market. • Discuss the available types of yarn counts, weaves, jacquards used for jacquard weaving operation. • Discuss the various fabric types with jacquard fabric structure in day-to-day usage. • Discuss the process involved in scaling designs from graph paper to fabric and vice versa. • Explain the benefits of CAD over manual jacquard designing method. • Discuss various terms and symbols used in jacquard fabric design. • Discuss the normal range of jacquard hook requirement for various fabric designs such as sarees, upholstery, made-ups, etc. 	<ul style="list-style-type: none"> • Demonstrate the steps to receive the fabric requirement from the client or weaver for jacquard design creation. • Demonstrate the method of collecting tools and equipment necessary to carry out the jacquard designing task. • Demonstrate the process involved in assessing trends associated with the jacquard design types in the market. • Demonstrate the steps involved in preparation of design report with the details of information to be included such as client details, delivery timelines, work requirements, feasibility and available support. • Demonstrate the process of analysing different designs and patterns from prescribed books to develop new jacquard designs. • Demonstrate the steps to identify different types of fabric and part of fabric such as body, putta, pallu, etc. on which design has to be developed. • Demonstrate the process of development of different types of motifs, patterns, and designs either manually or through a CAD tool. • Demonstrate the process of applying the weave structure for the developed design.

<ul style="list-style-type: none"> • Discuss the objectives of skill development programs. • Discuss the contribution of Indian textile and handloom sector to the country's economy. • Describe the basics of textile designing i.e., process flow, processes involved, different types of tools, types of graph papers and their count, different types of jacquards, hooks arrangements, type of harness, types of fabrics, colour palettes, input and output of a design process, etc. • Describe the role and responsibilities of textile designer-jacquard. • Discuss about possibilities of improvement in the handloom sub-sector. 	<ul style="list-style-type: none"> • Demonstrate the method of calculating the jacquard hooks requirement for given designs. • Demonstrate the steps to share the design with the client for necessary feedback and changes and received feedback from the client. • Demonstrate the steps to incorporate changes in the jacquard design based on the client's feedback. • Demonstrate the process of sending the final design to the card puncher. • Illustrate the process flow in a typical textile jacquard designing process.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
Computer, Jacquard CAD software, different jacquard fabrics, graph sheet, sketches, Jacquard loom in running production condition – 1 Nos, 25 people seating capacity.	

Module 2: Maintaining the work area, tools and machines

Mapped to TSC/N9015, v1.0

Terminal Outcomes:

- Demonstrate the process involved to keep up the designing area and allotted accessories.
- Discuss the need for of tools, equipment and PPE used in designing process.

Duration: 02:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Recognize various types of tools used for cleaning and maintenance of jacquard designing accessories. • State the objectives of maintenance and cleaning of designing tools used in jacquard designing operation. • State the significance of safe handling procedure of tools and equipment. • Recall the significance of written instructions on the jacquard designing tools and accessories. • State the significance of minimizing the wastage of material, effort, and time. • List the available types of material handling equipment and methods used in jacquard designing process. 	<ul style="list-style-type: none"> • Demonstrate the handling procedure of fabric samples, designing tools, PPE, and computers as per SOP. • Demonstrate method of identification of appropriate tools and equipment for the jacquard designing process in handloom sector. • Demonstrate the scheduled cleaning of workplace and related designing equipment. • Prepare a draft schedule for cleaning and waste collection for the assigned job role.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
Material handling equipment and tool kits of operational, cleaning maintenance activities.	

Module 3: Greening and energy conservation in textile sector

Mapped to TSC/N9015, v1.0

Terminal Outcomes:

- Classify the recyclable, non-recyclable and hazardous wastes in the jacquard designing process.
- Optimize usage of material and resources at workplace.

Duration: 02:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the terms of pollution control, soil conservation, waste management, recycle, forest conservation, global warming, organic products, etc. • List the different sources of energy. • Discuss the impact of using non-biodegradable materials on the environment. • Evaluate the different ways to conserve energy in textile sector. • Discuss the significance of conserving environment and energy resources. • Discuss the significance of specified usage of resources at work area. 	<ul style="list-style-type: none"> • Demonstrate the method of segregation of recyclable, non-recyclable, hazardous wastes in the jacquard designing workplace. • Demonstrate the method of handling and storage of waste materials such as paper, sketches, colouring tools, electronic waste, etc.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
video visuals on solar power, energy conservation and greening, Package materials - Covers, bags, wrappers, box, etc. Seating capacity for 25 people.	

Module 4: Health, safety and emergency response at workplace

Mapped to TSC/N9015, v1.0

Terminal Outcomes:

- Perform first aid at workplace.
- Follow fire safety protocol in case of fire emergencies.

Duration: 15:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of safe handling procedure of tools and equipment in jacquard designing process. • Discuss the importance and standard procedure for handling raw and finished materials. • Discuss the impacts hazards of unsafe workplace conditions and procedures in jacquard designing process (operational, environmental, personal, ergonomic, chemical, electric, fire) and methods to avoid hazards. • Discuss the types and importance of PPE used in the jacquard designing process in handloom sector. • Distinguish different types of alarms and their significance. • List the different items in a First Aid box. • Discuss the correct work posture and importance of ergonomics in the jacquard designing process. • Discuss the factors effecting health and importance of following healthy lifestyle practises. 	<ul style="list-style-type: none"> • Classify Personal Protective Equipment (PPEs) like body protector, ear plugs, nose mask, head cap, etc. as per guidelines. • Demonstrate the method of handling of fire extinguishers. • Locate emergency exits of workplace. • Participate in mock fire drills and evacuation at workplace. • Demonstrate procedures for application of first aid procedures for injury, accidents in mock situations. • Demonstrate the method of lifting of heavy weight materials as per standard procedure. • Distinguish between the various types of fire extinguishers. • Demonstrate healthy lifestyle practises.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
PPE, first aid kit, fire extinguishers, 25 people seating capacity.	

Module 5: Organizational standards and Policies

Mapped to TSC/N9015, v1.0

Terminal Outcomes:

- Recognize the significance of organization policies, quality standards in jacquard designing process.
- Explain the need for following standards and policies in jacquard designing process.

Duration: 06:00	Duration: 14:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of following organizational standard procedures, quality standards, rules, codes, policies and safety standards for textile sector. • Discuss the need for organizational quality systems, 5S, ISO, SA, etc. following in the textile sector. • Brief the importance of following work wear standards, behavioural protocols and etiquette in textile sector. • Discuss the contents of formats and procedures for reporting, defects, faults, material or tool requisition and quality parameters and task completed for assigned job. 	<ul style="list-style-type: none"> • Practice the systems like quality circles, 5S, ISO, etc. in the routine work. • Demonstrate the steps to maintain a hygienic workplace.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
list of rules and regulations followed in the organisation, list of industry standards i.e., performance indicators of process, worker, seating capacity for 25 people.	

Module 6: Teamwork, trust and communication

Mapped to TSC/N9016, v1.0

Terminal Outcomes:

- Conform to standard guidelines while working with the team.
- Discuss the requirements of effective communication at workplace.

Duration: 03:00	Duration: 07:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of teamwork and following industry protocols at workplace. • Explain the limits and responsibilities for the assigned duties in the jacquard designing process. • Summarize emergency contact numbers, details of officials, reporting Protocols and formats. • List hierarchy of communication and communication etiquettes in the jacquard designing process. • State the disadvantages of not adhering to team work and communication protocols. 	<ul style="list-style-type: none"> • Prepare a sample team performance report for an allotted task. • Demonstrate the use appropriate verbal and non-verbal communication skills while interacting with others at workplace.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
Video visuals of basic communications and team working, models of communicating and team, seating capacity for 25 people.	

Module 7: Adaptability

Mapped to TSC/N9016, v1.0

Terminal Outcomes:

- Operate at various environment and different people for the assigned task.
- Discuss the need of adaptability at the workplace.

Duration: 02:00	Duration: 03:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of adaptability at workplace with various levels of people. • Discuss the impacts of inadaptability at the workplace. • Discuss various types of situations which demand adaptability skills. • Discuss various possibilities of basis of discrimination and ways to handle the same. 	<ul style="list-style-type: none"> • Demonstrate the ability to work in dynamic work environment by developing coping mechanisms, survival tactics and traits of flexibility. • Create a sample backup work plan for the shortage of man power, raw materials, etc. • Demonstrate communication with members of different gender, ethnicity and PwD. • Demonstrate the process of preparation of sample application for reporting discrimination, to the concerned authority.
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
Video visuals of adaptability with suitable examples, seating arrangement for 25 people.	

Module 8: Employability Skills

Mapped to DGT/VSQ/N0101, v1.0

Duration: 12:00	Duration: 18:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<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. Discuss 21st century skills. Use appropriate basic English sentences/phrases while speaking 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 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. Discuss the significance of dressing up neatly and maintaining hygiene for an interview Discuss how to search and register for apprenticeship opportunities. 	<ul style="list-style-type: none"> Show how to practice different environmentally sustainable practices Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations. Demonstrate how to communicate in a well-mannered way with others. Demonstrate working with others in a team Show how to operate digital devices and use the associated applications and features, safely and securely Create a biodata Use various sources to search and apply for jobs
Classroom Aids:	
Charts, Posters, Projector, Blackboard.	
Tools, Equipment and Other Requirements	
Class room requirements: 25 people seating capacity with a screen and projector	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Basic Literacy and Numeracy	5 th Class (Self declaration)	6	Jacquard designing	-	-	

Trainer Certification	
Domain Certification	Platform Certification
TSC/Q07403, v2.0 –Assistant Design Maker - Textiles, Minimum pass percentage 80 per cent	MEP/Q2601, v1.0– Trainer, Minimum pass percentage 80 per cent

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)					

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
8 th Standard	NA	7	Jacquard designing	-	-	

Assessor Certification	
Domain Certification	Platform Certification
TSC/Q07403, v2.0 – Assistant Design Maker - Textiles, Minimum pass percentage 80 per cent	MEP/Q2701, v1.0 – Assessor, Minimum pass percentage 80 per cent

Assessment Strategy

The overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.

- a) The emphasis is on 'learn-by-doing' and practical demonstration of skills and knowledge based on the performance criteria.
- b) The assessments papers are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performances and assessment criteria mentioned in the Qualification Packs.
- c) The assessments papers are also checked for the various outcome-based parameters such as quality, time taken, tools & equipment requirement, etc.
- d) The assessments are designed so as to assess maximum parts during the practical hands-on work. Duties and responsibility of Assistant Design Maker - Textiles also assessed. The technical limitations at the training centres are taken care in theory and viva.
- e) The assessment agencies are instructed to hire qualified and experienced assessors as per TSC's criteria who have integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments.
- f) The assessment agencies are instructed to ideally have assessors with the right mix of industry experience, academia and these are detailed in Assessment Agency Protocol of TSC
- g) The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to Assessment Framework, competency-based assessments, assessors guide etc. and they are assessed for Domain and assessment skills. Only those assessors who clears both the assessments with minimum 80% marks in each are permitted to carry out assessments.
- h) The assessors are provided with Assessor's guide developed by the Subject Matter Expert of the Assessment Agency or by Textile SSC as per Assessment Framework. The Assessors guides are developed to ensure the maximum possible consistency/transparency in the assessment by different assessors and elaborate on the following:
 1. Qualification Pack Structure.
 2. Guidance for the assessors to conduct theory, practical and viva assessments.
 3. Guidance for trainees to be given by assessor before the start of the assessments.
 4. Guidance on assessment process, practical brief with step of operational practical observation checklist Attendance Sheet and mark sheet.
 5. Viva guidance for uniformity and consistency across the batch.
 6. Guidance on assessment evidence collection.

The assessment results are backed by evidence collected by assessors.

1. The assessors need to collect a copy of the attendance sheets for the training done under the scheme. The attendance sheets are signed and stamped by the in charge/ Head of the training centre.
2. The assessors need to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same needs to be mentioned in the attendance sheet. In case of suspicion, the assessor should authenticate and cross verify trainee's credential in the enrolment form.
3. The assessors need to take a camera to click photograph of the trainees working on the job and giving theory exam as evidence.
4. The assessors also need to carry a Photo ID card.
5. The assessors also need to take the photographs as evidence from appropriate angles/sides of the final work piece/job submitted by the trainee.
6. The details on assessment framework are elaborated in Textile SSC protocol for accreditation of Assessment Agencies and Assessment Framework.

All accredited Assessment Agencies follow the "Textile SSC's protocol for accreditation of Assessment Agencies and Assessment Framework". Each NOS in the Qualification Pack (QP) will be assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performances Criteria in the NOS will be assigned marks for theory or practical based on relative importance, criticality of function and training infrastructure.

References

Glossary

Term	Description
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
SOP	Standard Operating Procedure
PPE	Personal Protective Equipment
QC	Quality Control
ISO	International Organization for Standardization
SA	Standards on Auditing
CAD	Computer-Aided Designing