

GOVERNMENT OF THE PUNJAB
TECHNICAL EDUCATION & VOCATIONAL
TRAINING AUTHORITY



CURRICULUM FOR

FABRIC INSPECTOR

(3 – Months Course)

Revised April 2016

APPROVED

Date: 7-4-16

Sign: 

CURRICULUM SECTION
ACADEMICS DEPARTMENT

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TRAINING OBJECTIVES

This Course is for participants who have direct responsibility for Quality inspection of the fabric produced Greige and/or Finished. This subject covers quality concepts, methods of fabric inspection and reporting for raw and finished fabric for further processes according to the given requirements.

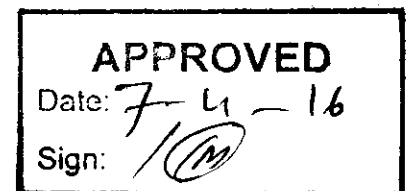
Fabric Quality Inspectors require broad knowledge of fabric types and inspection methods. These individuals should be very attentive to detail and be able to report thorough information. Their positions require that they need to locate, communicate and follow-up according with imperfections in fabric.

The training course includes theory and practical skill in the standard inspection, grading and color measurement methods in woven and knitted fabrics as well as the presentation of inspection results in report form.

The introduction of ISO 9000 into many fabric, Processing and garment manufacturing plants may require inspectors to place more emphasis on documenting processes. They are required to upgrade their skills in the areas of document use and textual reading to respond to the demands of ISO documentation.

CURRICULUM SALIENTS

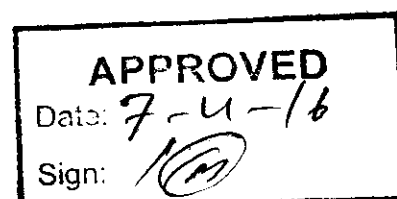
Name of the course	:	Fabric Inspector
Entry Level	:	Matric
Duration of Course	:	03 –Months
Total Training Hours	:	400 Contact Hours
Training Methodology	:	Practical 80 %
	:	Theory 20%
Medium of Instructions	:	Urdu / English



SKILL PROFICIENCY DETAILS

On successful completion of this course, the trainee should be able to:


1. Enhance the quality in production.
2. Find out the faults and their remedies.
3. Understand ISO 9000-9002 and its importance.
4. Differentiate fabric, Knitted or woven.
5. Identify causes of common faults in fabric due to processes or raw material etc.
6. Identify dyeing and printing quality requirements.
7. Understand measurement, color matching and other color related parameters.
8. Inspect fabric on vendor and/or dye-house premises.
9. Identify, follow-up and evaluate quality issues.
10. Keeping close communication with the Fabric Production Dept.
11. Submitting daily inspection reports on findings.
12. Measure length or width of fabric to detect variation from customer or plant specifications, using tape or rule.
13. Spread article over table or other place and scans fabric to detect fabric manufacturing defects, loose Ends, color variations roll to roll and/or with in the roll, and uneven width, GSM, or Printing.
14. Mark defects with gummed label or chalk.
15. Record number and type of defects.
16. Fold articles according to customer or plant specifications.
17. Identify Fabric types and their colors and styles.
18. Find out the causes of defects and factors that lower the grade of fabric.



KNOWLEDGE PROFICIENCY DETAILS

On successful completion of this course, the trainee should be able to:

1. Define the importance of quality in production.
2. Describe common faults and their remedies.
3. Explain ISO 9000-9002 and its importance.
4. Understand fabric, Knitted or woven.
5. Explain causes of common faults in fabric due to processes or raw material etc.
6. Define dyeing and printing quality requirements.
7. Explain measurement, color matching and other color related parameters.
8. Describe Fabric types and their colors and styles.
9. Explain the causes of defects and factors that lower the grade of fabric.
10. Explain quality issues.
11. Describe the daily inspection report on findings.

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DETAIL OF COURSE CONTENTS**Fabric Inspector
(3 – Months Course)**

Sr. No	Detail of Topics	Theory Hours	Practical Hours
1.	Introduction to Garment Industry, Fabric & Industrial Stitching Machines 1.1 Garments Industry 1.2 Fabric 1.2.1 Knitted Fabric 1.2.2 Woven Fabric 1.2.3 Denim Fabric 1.1 Industrial Stitching Machines	05	-
2.	Quality and Quality in Fabric Production 2.1 Quality Definition 2.2 Customers Requirements 2.3 Inspection Criteria for the Fabric performance	07	-
3.	Fabric Quality Requirements 3.1 Fabric Faults Classifications 3.2 Fabric Quality Standards 3.3 Major and Minor Fabric Faults 3.4 Inspection Methods	05	25
4.	Yarn Quality Factors 4.1 Yarn Quality Standards 4.2 Yarn Faults Effect Fabric Production 4.3 Yarn Faults Effect Processing Parameters	07	35
5.	Knitting / Weaving Faults 5.1 Knitting Basics 5.2 Weaving Basics 5.3 Knitting Faults & their Causes 5.4 Weaving Faults & their Causes	07	45

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<p>6.</p>	<p>Dyeing Faults 6.1 Color Matching Problems 6.2 Fastness Problems 6.3 Appearance Problems</p>	<p>05</p>	<p>38</p>
<p>7.</p>	<p>Finishing Faults 7.1 Stability Problems 7.2 Appearance Problems 7.3 Functional Problems</p>	<p>05</p>	<p>35</p>
<p>8.</p>	<p>Project 8.1 <i>Trainee needs to present his/her project with all the faults discussed during sessions as per FACERAP (FAULT, APPEARANCE, CAUSE, EFFECT, RESPONSIBILTiy, ACTION, and PREVENTION)</i></p>	<p>07</p>	<p>35</p>
<p>9.</p>	<p>Laboratory Tests for Fabric Quality 9.1 Tests related to Stability 9.2 Tests related to Color Fastness 9.3 Tests related to Fabric Thickness & Strength 9.4 Tests related to Pilling / Flammability</p>	<p>07</p>	<p>37</p>
<p>10.</p>	<p>ISO 9002 & Documentation 10.1 Introduction to ISO 9000 10.2 Fabric Quality System of an Industrial Unit 10.3 Documents related to Fabric Quality System 10.4 Fabric Inspection Method 10.5 Faults Reporting System 10.6 Marking on the Rolls / Bundles 10.7 Record Keeping 10.8 Data Analysis</p>	<p>06</p>	<p>29</p>
<p style="text-align: center;">Total</p>		<p>61</p>	<p>279</p>

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LIST OF PRACTICALS

1. 4 Point System
2. 10 Point System

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SCHEME OF STUDIES
I.T Fundamentals

S.No	Main Topics	Theory Hours	Practical Hours	Total Hours
1.	Introduction to Computers	1	4	5
2.	Typing - Microsoft Word	2	6	8
3.	Internet & Electronic Mail	1	6	7
Total		04	16	20

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DETAIL OF COURSE CONTENTS
I.T Fundamentals


S. No	Detail of Topics	Theory Hours	Practical Hours
1	<p>Introduction to Computers</p> <p>1.1 What is a computer- Definition, functions and general features?</p> <p>1.2 What is Hardware – 1.2.1 Computer parts and units 1.2.1.1 Input Unit - Keyboard, Mouse etc. 1.2.1.2 Central Processing Unit 1.2.1.3 Output Unit</p> <p>1.3 What is Software – 1.3.1 Electronic Parts of a Pc it is 1.3.1.1 Software and Its types 1.3.1.2 System Software, Application Software</p> <p>1.4 Working with windows Operating System 1.4.1 How does windows desktops work?</p> <p>1.5 What are the Icons, Shortcuts and other graphic, 1.5.1 How to see computer contents on different drives etc</p>	1	4
2	<p>Typing and Word processing (MS Word)</p> <p>2.1 Proper way of typing correct and speedy - getting familiar with the keys</p> <p>2.2 Where to type in computer? How to save a file? How to get it back? Where to find your saved work?</p> <p>2.3 How to get it printed?</p>	2	6
3	<p>Emailing and Internet Surfing</p> <p>3.1 How to go to Internet, what is required for an internet connection etc.</p>	1	6

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	3.2	How to use email? How to search on web? Etc		
	3.3	How to make new email account, login and logout an email account etc.?		
Total			04	16

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LIST OF PRACTICALS
I.T Fundamentals

S. No.	Name of Practical
1.	Turn On/Off and setting of power supply
2.	Accessing The Desktop
3.	Using of Icons and Shortcuts
4.	Setting / customizing the desktop
5.	Viewing the contents of computer – Directory
6.	Copying, Deleting and Moving Files in a folder
7.	Working with different Applications
8.	Opening MS Word for typing
9.	First lesson of Typing A S D F
10.	Second Lesson of typing J K L ;
11.	Third Lesson U I O P
12.	Fourth Lesson R E W Q
13.	Fifth Lesson N M , .
14.	Sixth Lesson V C X Z
15.	Seventh Lesson All letter using R index Finger
16.	Eighth Lesson All letter using L index Finger
17.	Formatting in MS Word Bold, Italic etc.
18.	Using Internet
19.	Opening Email, making new account
20.	Sending Receiving Emails

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SCHEME OF STUDIES
Functional English

S.No	Main Topics	Theory Hours	Practical Hours	Total Hours
1.	Introduction of English Sentence Structure	2	3	5
2.	Use of present indefinite tense	2	3	5
3.	Use of 'is' 'are' 'am' questions and negatives	2	3	5
4.	Ask questions	2	3	5
5.	Express daily routines	2	3	5
6.	Know how to address people	1	2	3
7.	Provide written feedback	1	2	3
8.	Dialogues	1	2	3
9.	Understand vocabulary	1	2	3
10.	Application/C.V.	1	2	3
Total		15	25	40

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DETAIL OF COURSE CONTENTS
Functional English

S. No	Detail of Topics	Theory Hours	Practical Hours
1	Introduction of English sentence structure	2	3
2	Use of present indefinite tense with exercises	2	3
3	Use of 'is' 'are' 'am' questions and negatives	2	3
4	4.1 Ask questions 4.1.1 At work place 4.1.2 In the market 4.1.3 In classroom	2	3
5	5.1 Express daily routines 5.1.1 Before going to college 5.1.2 Dealing with colleagues 5.1.3 Going to market	2	3
6	6.1 Know how to address people 6.1.1 In Meetings 6.1.2 In class	1	2
7	7.1 Provide written feedback 7.1.1 After visiting the market 7.1.2 On some official task	1	2
8	8.1 Dialogues 8.1.1 With colleague 8.1.2 Teacher/student 8.1.3 Employer/employee 8.1.4 Booking on railway station	1	2
9	Understand vocabulary	1	2
10	Application / C.V.	1	2
Total		15	25

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LIST OF PRACTICALS
Functional English

S. No.	Practical
1.	Group discussion
2.	Interviews
3.	Role play

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LIST OF LABS

Fabric Inspector

- Fabric Inspection Lab
- Lab for Finishing Faults

I.T Fundamentals

- Computer Lab

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LIST OF MACHINERY / EQUIPMENT / TOOLS ETC

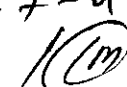
(For a Class of 25 Students)

Name of Trade	Fabric Inspector
Duration of course	3- Months

S. No.	Nomenclature of Equipment / Tool	Quantity
1.	Fabric Inspection Machine	01 No.
2.	Fabric Inspection Table	05 No.
3.	GSM Cutter	01 No.
4.	Weighing Scale	01 No.
5.	Measurement Tapes	25 Nos.

COMPUTER LAB

S. No.	Tools / Equipment	Quantity
1.	Desktop computer (Specifications as per notification issued by MIS Section, TEVTA)	26 (1 for each student & 1 for the teacher)
2.	Printer (Laser)	01
3.	Scanner	01
4.	Internet Connection (At least 1 MB speed)	01
5.	UPS 10 KVA	01
6.	Air Conditioner 1 ½ Ton	02
7.	Multimedia Projector	01

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LIST OF CONSUMABLE MATERIAL**Fabric Inspector**


S. No.	Item	Quantity
1.	Different Types of Fabric Rolls / Bundles	As per requirement
2.	Fabric Faults Book	25 Nos.

Functional English

S. No.	Item	Quantity
1.	Stationery	As per requirement
2.	Board Markers	As per requirement

I.T Fundamentals


S. No.	Item	Quantity
1.	Printing Paper	As per requirement
2.	Printer Toner	As per requirement

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EMPLOYABILITY OF PASS OUTS

The pass outs of the course may find job / employment opportunities in the following areas / sectors:-

1. Fabric Production Units
2. Processing Units
3. Garment Factories (Knitwear + Woven garments)

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REFERENCE BOOKS

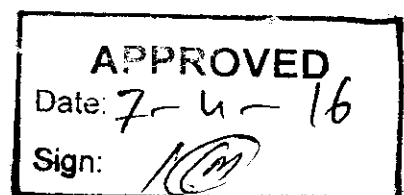
1. Manual for Fabric Inspectors
2. ASTM Standards
3. Textile Fiber to Fabric

Functional English

1. High School English Grammar By Wren & Martin
2. Oxford English Grammar

I.T Fundamentals

1. Introduction to Computer by Peter Norton
2. 2007 Microsoft® Office System Step by Step by Joyce Cox, Steve Lambert and Curtis Frye
3. Internet and E-mail with Windows 7 by Studio Visual Steps



MINIMUM QUALIFICATION OF INSTRUCTOR

- DAE in Weaving or Processing, preferably in Processing with 3-5 years experience as Fabric Inspector.

Functional English

- M.A. (English)


I.T Fundamentals

- DAE CIT/ BCS from HEC recognized university

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LIST OF TRADE RELATED JARGON

1. Quality
2. Production
3. Faults
4. Woven Fabric
5. Knitted Fabric
6. Identify
7. Causes
8. Processes
9. Specific
10. Variation
11. Defects
12. Find out
13. Evaluate
14. Dyeing Faults
15. Fashion Trends
16. Yarn Quality
17. Enhance the Quality
18. Communication
19. Quality Issue
20. Color Matching
21. Raw Material
22. Appearance
23. Weaving Faults
24. Responsibility
25. Fundamentals
26. Keeping
27. Uneven

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Curriculum Revision Committee

1. **Ms. Qureshia Sultana,** Convener
Instructor (Fashion Designing),
GCT (W) Lytton Road, Lahore

2. **Ms. Abida Khalid,** Member
Instructor DDM,
GCT (W) Lytton Road, Lahore

3. **Mr. Ali Ashraf,** Member
Sr. Assist Manager (Product Development) US
Apparel (Pvt.) Ltd. Unit # 3,
C/O Al-Hafiz Karyana & General Store Main
Street, New Islam pura, Toba Tek Singh.

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