

**Curriculum
For
Certificate in Fabric Manufacturing
(Weaving)
(Duration: 1 Year)
Code: VI87S014
(2013)**

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Scheme of Studies
20% Theory 80% Practical
Fabric Manufacturing (Weaving)

Sr #	Modules	Theory Hours	Practical Hours	Total Hours
1	Module 1: Develop weave plan.	30	120	150
2	Module 2: Prepare warp beam.	18	72	90
3	Module 3: Prepare sized beam.	24	96	120
4	Module 4: Perform drawing in	32	128	160
5	Module 5: Set beam article	18	72	90
6	Module 6: Set Machine	30	120	150
7	Module 7: Prepare /arrange weft	16	64	80
8	Module 8: Weave fabric	32	128	160
9	Module 9: Perform maintenance	32	128	160
10	Module 10: Perform Inspection/ Fault remedies	16	64	80
11	Module 11: Adopt safety precautions	16	64	80
12	Module 12: Develop professionalism	32	128	160
13	Module 13: Communicate with others	24	96	120
	TOTAL HOURS	320	1280	1600

Name of the course: Fabric Manufacturing (weaving)

Introduction

This course of Certificate in Fabric Manufacturing in weaving has been developed for those persons who have ability to read and write in English and Urdu languages and are familiar with the processes of the weaving mills. If the learners do not fulfill the last requirement then they will be made familiar with the processes during the course of training. The modules cover all the departments of weaving mills which include fabric analysis, warping department, sizing department, drawing in, weaving, inspection, folding and packing departments.

Objectives

- To Understand the analysis of woven fabric.
- To Understand the yarn winding sections and its processes
- To Understand the drawing in process according to the design.
- To Understand the fabric manufacturing process and its impact on fabric qualities.
- To Understands the fabric faults and its mending along grading.
- To Understands the maintenance of the machine and its importance.

Competencies gained after completion the course.

- To perform weaving and its processes effectively and efficiently.
- To Clean all the machines
- To Repair/ change the faulty parts
- To Perform the maintenance of the machine parts according to the given schedules
- To Work effectively in a repair and maintenance team
- To Perform report writing and communicate with other concerned departments in the weaving mill such as Main store, Purchase, Accounts, HR, etc.
- To understand different weaving processes.

Job opportunities

After completion of course, trainee will have the opportunities to pursue career opportunities into job roles such as assistant supervisor, Educational sector as lab Technician.

Outcomes

After training the trainee will be able to handle the loom and weave the fabric effectively and efficiently.

Trainee entry level: Matriculation.

Minimum qualification of Instructor: B.Sc. Textile Engineering (Fabric Manufacturing)

Medium of Instruction: Urdu / English

Sequence of the modules:

Module 1: Develop Weave Plan

Module 2: Prepare Warp Beam

Module 3: Prepare Size beam

Module 4: Perform Drawing In

Module 5: Set Beam/Article

Module 6: Set Machine

Module 7: Prepare/Arrange Weft

Module 8: Weave Fabric

Module 9: Perform Maintenance

Module 10: Perform Inspection/Fault Remedies

Module 11: Adopt Safety Precautions

Module 12: Develop Professionalism

Module 13: Communicate with others.

Timeframe of assessment:

Duration: 1 year

Total Hours: 1600

Theory Hours: 320

Practical Hours: 1280

Overview about the program –Curriculum for (Fabric Manufacturing Weaving) –

Module Title and Aim	Learning Units	Theory hours	Workplace ¹ hours	Timeframe of modules
Module 1 Develop Weave Plan	<ul style="list-style-type: none"> Analyze Fabric Check Yarn quality Check Fabric Weight Select weave type Identify Design repeat Make peg plan Make shaft frame 	30 hours	120 hours	Independent
Module 2 Prepare Warp Beam	<ul style="list-style-type: none"> Fill creel Set yarn path Measure length Start Machine 	18 hours	72 hours	Completing Module 1
Module 3 Prepare size Beam	<ul style="list-style-type: none"> Adjust creel Set Yarn path from different zones Measure length Start machine 	24 hours	96 hours	Completing Module 1, 2
Module 4 Perform drawing – in/Drafting	<ul style="list-style-type: none"> Set dropper Perform drawing in 	32 hours	128 hours	Completing Module 1,2,3
Module 6 Set Machine	<ul style="list-style-type: none"> Adjust the machine Adjustment of loom motions. 	30 hours	120 hours	Completing Module 1,2,3,4, 5
Module 7 Prepare/Arrange Weft	<ul style="list-style-type: none"> Measure weft length and wind on bobbin 	16 hours	64 hours	Completing Module 1,2,3,4,5,6

	<ul style="list-style-type: none"> • Adjust bobbin on shuttle if needed 			
Module 8 Weave Fabric	<ul style="list-style-type: none"> • Start machine • Check yarn breakage and fabric quality • Check machine working • Check running drawing in faults 	32 hours	128 hours	Completing Module 1,2,3,4,5,6, 7
Module 9 Perform Maintenance	<ul style="list-style-type: none"> • Clean machine • Maintenance of the machine. 	32 hours	128 hours	Completing Module 1,2,3,4,5,6,7, 8
Module 10 Perform Inspection/Fault Remedies	<ul style="list-style-type: none"> • Check fabric quality • Perform Mending • Carry out grading of fabric • Carry out packing 	16 hours	64 hours	Completing Module 1,2,3,4,5,6,7,8 ,9
Module 11 Adopt Safety Precautions	<ul style="list-style-type: none"> • Workplace management 	16 hours	64 hours	Completing Module 1,2,3,4,5,6,7,8 ,9, 10

<p>Module 12</p> <p>Develop Professionalism</p>	<ul style="list-style-type: none"> • Organizational behavior. 	32 hours	128 hours	Completing Module 1,2,3,4,5,6,7,8,9,10,11
<p>Module 13</p> <p>Communicate with others</p>	<ul style="list-style-type: none"> • Communicate with customers • Communicate with supervisors • Communicate with co-workers 	24 hours	96 hours	Completing Module 1,2,3,4,5,6,7,8,9,10,11,12

Fabric Manufacturing Weaving Curriculum Contents (Teaching and Learning Guide)

Module 1: Title.....Develop Weave plan

Objective of the Module: ...To do the analysis of woven fabric by unravelling the fabric in order to reproduce it with respect to the customer requirements.

Duration: ..150.hours Theory: ..30 . hours Practice:.120. hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
1. Analyze Fabric	To analyze the characteristics of woven fabric and to be able to identify the woven fabric by unraveling the warp yarns and weft yarns.	<p>Knowledge of: Woven fabric, the warp yarns, weft yarns.</p> <p>Ability to: Differentiate woven and knitted fabric by identifying and judging the yarn direction of yarns either warp and weft.</p>	8hrs	30 hrs	Fabrics , Pick counting Glass, books	Lab
2. Check Yarn quality	To identify and judge the yarn quality requirements for weaving.	<p>Knowledge of: Yarn type, carded or combed, high TPI, Strength.</p> <p>Ability to: Check correct yarn type for weaving according to requirement with respect to strength.</p>	8 hrs	30 hrs	Yarn strength tester	lab
3. Check Fabric Weight	To measure the fabric weight with respect to requirements.	<p>Knowledge of: Gram/meter square of woven fabric</p> <p>Ability to: To calculate the</p>	7 hrs	30 hrs	GSM Cutter and weighing Balance	lab

		correct GSM of fabric(woven)				
4. Select weave type	To make different types of weaves on point paper and be able to reproduce it with respect to end use.	<p>Knowledge of: Different weaves i-e plain, twill, satin etc</p> <p>Ability to: To unravel fabric for identifying weaves type from warp and weft direction.</p>	7 hrs	30 hrs	Fabrics	Class room
5. Make peg plan	To develop the peg plan by analyzing the design repeat.	<p>Knowledge of: Behavior of yarns by conceptualizing the design repeat</p> <p>Ability to: To identify the no. frames with respect to different behavior of yarns in design repeat.</p>	7 hrs	30 hrs	Fabrics	Class rooms

Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 2: Title.....Prepare Warp Beam

Objective of the Module: ..To wind the warp yarns on the beam as per requirement of the end product and its use.

Duration:90 hours Theory: 18 hours Practice: 72 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PRC	Materials Required	Learning Place
1. Fill creel	To put the yarn cones on the creel section of the warping machine effectively and efficiently.	Knowledge of: Creel and its types such as V type and H type creel. Ability to: Fill the creel efficiently and effectively with respect to cones required for particular end use.	5 hrs	20 hrs	Creel and yarn cones	Lab Weaving
2. Set yarn path	To pass the yarn from creel section to head stock effectively and efficiently.	Knowledge of: Machine parts for yarn passage such as creel, sensors, comb and head stock. Ability to: Pass the yarn from creel to headstock effectively and efficiently.	5 hrs	20 hrs	Warping machine	lab
3. Start Machine	To operate the machine (warping) effectively.	Knowledge of: How to start the machine after observing/checking the all parameter like yarn path passage, yarn placement. Ability of To Start the machine efficiently	4 hrs	16 hrs	Warping machine	Lab
4. Measure length	To do the calculation of	Knowledge of: Calculation of	4 hrs	16 hrs	Warping machine	Lab

	warp yarn as per requirement of the order.	warping such as no of ends per inch or total no of ends in fabric width by considering the Creel capacity. Ability of: Calculate threads/inch according to the requirement efficiently and effectively.				
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Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 3: Title...Prepare Size Beam

Objective of the Module: .To wind the sized yarn on the beam as per requirement of the customer requirement.

Duration:120. hours Theory: 24. hours Practice: 96 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
<ul style="list-style-type: none"> Adjust creel 	To set the warp beam creel for sizing on sizing machine effectively and efficiently.	<p>Knowledge of: Creel adjustment in terms of warp beams either direct warp or sectional warp beam.</p> <p>Ability to: Adjustment of warp beam creel effectively and efficiently such that they are properly aligned, brackets are tightly closed, beams gears and chains are working properly.</p>	6 hr	24 hr	Sizing machine and beams	Sizing Area
<ul style="list-style-type: none"> Set Yarn path from different zones 	To pass the warp yarns from the different zones of the sizing machine effectively and efficiently.	<p>Knowledge of: Different zones of the machine i-e creel,size box,drying zone,leasing and winding zone.</p> <p>Ability to: Pass the yarn from different zones effectively and efficiently.</p>	6 hr	24 hr	Sizing machine	Sizing Area
<ul style="list-style-type: none"> Measure 	To calculate the required length	<p>Knowledge of: Yarn length</p>	6 hrs	24 hr	Sizing machine	Lab

length	of yarn as per requirement for the particular beam and its set.	calculation Ability to: to do the Yarn calculation in terms of length for the given order on beam effectively and efficiently.			e and yarn	
• Start machine	To operate the sizing machine.	Knowledge of: Machine operation, its parameters such as yarn placement, panel working, speed, adjustment etc Ability to: to run the machine by considering the precautionary measures such as speed, distance from the machine, proper dress .	6 hrs	24 hrs	Sizing machine	Lab

Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 4: Title...Perform Drawing In

Objective of the Module:To Perform Drawing In process as per requirement of the customer demand.

Duration: ...160 hours Theory: ..32. hours Practice:..128 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
<ul style="list-style-type: none"> Set dropper 	To do the adjustment of droppers on dropper stand for filling.	<p>Knowledge of: Droppers adjustment such as droppers and no of threads are equal or properly aligned.</p> <p>Ability to: Adjustment of droppers effectively and efficiently</p>	8 hrs	32 hr	Droppers	Lab
<ul style="list-style-type: none"> Perform drawing in 	To do the setting of heald wires. Reed denting filling, warp yarn passage on the loom.	<p>Knowledge of: Heald wires w.r.t different materials and its types, reed denting filling w.r.t design and end product.</p> <p>Ability to. To set the heald wires, reed denting effectively and efficiently in order to perform drawing in.</p>	24 hrs	96 hrs	Heald wires, reed, crocheting needle, yarns	lab

Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 5: Title....Set Beam Aricle

Objective of the Module: ..To adjust the beam on the machine as per requirement for weaning operation.

Duration:90 hours Theory: 18.. hours Practice:..72 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
<ul style="list-style-type: none"> Fit drawn beam on machine 	Fitting of draw beam on machine effectively and efficiently	<p>Knowledge of: How to do the fitting of beam on machine and its handling by using tools and requirements including precautions such as careful handling, away from machine and loader.</p> <p>Ability to: Fit the beam effectively and efficiently with respect to new article ship of the demanded quality.</p>	8 hrs	32 hrs	Loom and maintenance tools.	Lab Weaving Section
<ul style="list-style-type: none"> Combing and knotting of warp yarn on beam 	To do the combing of drawn yarn and knot it on	<p>Knowledge of: Role of yarn combing and its tying so</p>	10 hrs	40 hrs	Comb and loom.	Lab

	the fabric roll effectively and efficiently.	that to avoid entangling, remove the unwanted knots etc. Ability to: Combing and tying the yarns on loom effectively.				
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Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 6: Title.....Set the Machine

Objective of the Module: ...To adjust the setting of the machine before its operation in order to perform the weaving operation properly.

Duration: .150. hours Theory: 30. hours Practice:.120hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Durati on PRC	Material s Required	Learnin g Place
Adjustment of the machine.	To set the RPM, Tension of yarn and position of frames and reed with respect to end use	<p>Knowledge of: Role of RPM, Tension of yarn and concept of reed position with respect to frame position of loom</p> <p>Ability to: To adjust RPM, reed and frame position effectively and efficiently</p>	18 hrs	72 hrs	Loom	Lab
<ul style="list-style-type: none"> • Adjustment of loom motions 	To set the mechanism of shedding and picking and beating of the machine that help for the product development.	<p>Knowledge of: Shedding of the loom such as cam, dobby and jacquard shedding with respect to its need or use and weft</p>	12 hrs	48 hrs	Loom	Lab

		<p>mechanism such as shuttle, projectile and air jet loom with respect to its use and requirement and also beating motion of the loom that helps to push the newly weft insertion up to the fell of the cloth.</p> <p>Ability to: Setting of shedding ,weft mechanism and beating of the loom effectively and efficiently.</p>				
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Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 7: Title Prepare/Arrange Weft

Objective of the Module: To prepare the weft yarn on the loom for the product effectively and according to the requirements.

Duration:80. hours Theory: 16 hours Practice: 64 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
<ul style="list-style-type: none"> Measure weft length and wind on bobbin 	To do the calculation for preparing bobbin of weft yarn for weaving.	Knowledge of: Calculation of bobbin yarn length. Ability to: To calculate the weft yarn length accurately for bobbins.	12 hrs	48 hrs	Measuring tape, bobbin, yarn	Lab
<ul style="list-style-type: none"> Adjust bobbin on shuttle if needed 	To do the placement of shuttle in the bobbin.	Knowledge of: Shuttle quality such as even surface, not damaged and its requirements with respect to different materials as well such as cotton, silk etc Ability to: Set the shuttle with bobbin accurately with respect to different materials such as cotton, silk etc	4 hrs	16 hrs	Bobbin and loom	Lab

Fabric Manufacturing Weaving Curriculum Contents (Teaching and Learning Guide)

Module 8: Title :Weave the Fabric.

Objective of the Module: To do the weaving of the given fabric as per requirement of the customer by considering all important parameter of the looming.

Duration: ...160 hours Theory: .32 hours Practice:..128hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
<ul style="list-style-type: none"> Start machine 	To operate the machine after checking all important parameter of looming..	<p>Knowledge of: Loom type, its panel(operation modes) and its speed parameter, material parameters as well.</p> <p>Ability to: Run the machine accurately after checking all parameters.</p>	8 hrs	32 hrs	Loom	lab
<ul style="list-style-type: none"> Check yarn breakage and fabric quality 	To check the quality of woven fabric as per requirement.	<p>Knowledge of: running machine faults like yarn breakage, starting marks, and other drawing in faults like wrong denting etc and their remedies.</p> <p>Ability to: Check the faults and remove these faults accurately.</p>	8 hrs	32 hrs		Lab
<ul style="list-style-type: none"> Check 	To observe	Knowledge of:	8 hrs	32 hrs		

machine working	the working of machine by checking its all parameters of operations.	Machine speed, vibration Ability to: to check the parameters of working machine effectively and efficiently.				
<ul style="list-style-type: none"> Check running drawing in faults 	To identify and figure out the drawing in faults from the fabric.	<p>Knowledge of: Drawing in faults such as double end, wrong end etc</p> <p>Ability to: To check the faults of drawing in on machine accurately and efficiently.</p>	8 hrs	32 hrs		

Fabric Manufacturing Weaving Curriculum Contents (Teaching and Learning Guide)

Module 9: Title. Perform Maintenance.

Objective of the Module: ..To do the maintenance of the machine accurately in order to perform faultless weaving.

Duration:160 hours Theory: 32.hours Practice: 128 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PRC	Materials Required	Learning Place
Clean machine	To do all the parameter of cleaning of machine that includes various parts of machine.	<p>Knowledge of: Cleaning parameters and its schedule of maintenance such as weekly, monthly.</p> <p>Ability to: To perform cleaning of machine by using proper tools accurately.</p>	16 hrs	80 hrs	Duster	Lab
<ul style="list-style-type: none"> Maintenance of machine 	To do the oiling of machine with respect to its schedule and repair or replace the defected parts of the machine	<p>Knowledge of: Oil types with respect to machine types and its operation and parts of the machine.</p> <p>Ability to: Oiling and greasing of machine</p>	16 hrs	48hrs	Oil and grease, spare parts	Lab

		with repairing and replacing of parts accurately				
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Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 10: Title.....Perform Inspection.

Objective of the Module: ..To do the inspection of the newly woven fabrics and its and remedies accuratley.

Duration: .80 hours Theory: 16 hours Practice:...64 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Duration PR	Materials Required	Learning Place
<ul style="list-style-type: none"> Check fabric quality 	To check the quality parameters of woven fabric and identify its faults.	<p>Knowledge of: Quality parameter in terms of fabric count, yarn type and its fineness, GSM</p> <p>Ability to: Check the quality of fabric effectively and effectively.</p>	4 hrs	16 hrs	Fabrics , plucker, mending tool	Class room
<ul style="list-style-type: none"> Perform Mending 	To identify the mendable and non mendable faults from the fabric and mend them accurately.	<p>Knowledge of: Faults type, mendable and non mendable faults such as stains, miss pick, reed marks etc.</p> <p>Ability to: to mend the faults effectively and efficiently.</p>	4 hrs	16 hrs	Mending tool	Class room

<ul style="list-style-type: none"> Carry out grading of fabric 	<p>To do the grading of fabric with respect to faults in the woven fabric.</p>	<p>Knowledge of: 4 point and 10 point grade system</p> <p>Ability to: to perform grading accurately.</p>	4 hrs	16 hrs	Fabrics(woven) of different qualities	Class room
<ul style="list-style-type: none"> Carry out packing 	<p>To do the packing of the order by observing all parameters of contract status.</p>	<p>Knowledge of: Packing types such as bales, pallets and rolls.</p> <p>Ability to: To pack the order accurately</p>	4 hrs	16 hrs	Fabrics	lab

Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 11: Title....Adopt Safety Precautions

Objective of the Module:To observe the all safety precautions for performing the weaving safely.

Duration:80 hours Theory:16. hours Practice:..64 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR	Durati on PR	Material s Require d	Learnin g Place
<ul style="list-style-type: none"> • Work place management 	How to use the safety tool, understanding of atmospheric temperature and use of precautionary tools	Knowledge: which type of safety tool for which use such as mask, ear plug gloves etc and knowledge of importance of atmospheric parameter for weaving Ability to: <ul style="list-style-type: none"> • Use of precautionary tools • Maintain atmosphere temperature such as 27 degree • Wear mask properly • Wear ear plugs properly • Adopt workplace safety • Wear gloves properly. 	24 hrs	96 hrs	Safety tools	lab

Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 12: Title. Develop Professionalism

Objective of the Module: .To understand the Professionalism of the work place so that the trainer will be able to work by considering the importance of team work, attitude and behaviours.

Duration:160.. hours Theory:32 hours Practice:...128 hours

Learning Unit	Learning Outcomes	Learning Elements	Durati on THR	Durati on PR	Materia ls Required	Learning Place
<ul style="list-style-type: none"> Organizational behavior. 	Understanding of organizational behavior for performing job	Knowledge of: Organizational behavior skills Such as concept of industrial psychology ,attitudes, behaviors, bloom taxonomy etc Ability to: To interact with other employees Effectively by understanding how to behave in any organization so that they can Participate in skill test/ competition, Consult with experts,	32 hrs	128 hrs	Books	Class room

		Interact with co-workers, Participate in trainings				
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Fabric Manufacturing Curriculum Contents (Teaching and Learning Guide)

Module 13: Title.....Communicate with others.

Objective of the Module: ...To communicate with in organization and outside the organization effectively and efficiently that helps the trainee to interact easily.

Duration: .120 hours Theory:24. hours Practice:...96 hours

Learning Unit	Learning Outcomes	Learning Elements	Durati on THR	Durat ion PR	Material s Required	Learnin g Place
<ul style="list-style-type: none"> Communicate with customers 	Communication skills Verbal and non verbal	Knowledge of: Communication skills such as verbal and non verbal. Ability to: to communicate effectively and efficiently inside or outside the organization.	8 hrs	32 hrs	Books	Class room
<ul style="list-style-type: none"> Communicate with supervisors 	Communication skills Verbal and non verbal	Knowledge of: Communication skills such as verbal and non verbal. Ability to: to communicate effectively and efficiently inside or outside the organization.	8 hrs	32 hrs	books	
<ul style="list-style-type: none"> Communicate with co-workers 	Communication skills Verbal and non verbal	Knowledge of: Communication skills such as verbal and non verbal. Ability to: to communicate effectively and efficiently inside or outside the organization.	8 hrs	32 hrs	books	

Assessment template

Module 1: Fabric analysis

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Analyze the Fabric	02	04	Give the submission of the woven fabric sample by observing the following. Sample no: Weave type: Yarn type Fibre type GSM: Yarn fineness: Yarn fault: Weave plan	Written test Practical demonstration	

Module 2: Prepare Warp Beam

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Fill creel	0.5	03	Fill the creel of warping machine and calculate the time taken for doing this. Repeat the process on 3 different qualities.	Practical demonstration	
Set yarn path and on the machine	0.5	03	Draw the Yarn path diagram from creel to headstock and measure efficiency of the running machine and submit the report of 3 different qualities.	Practical demonstration	

Module 3: Prepare Size Beam

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Yarn path from different zones	01	04	Draw Yarn path diagram From different zones i-e creel zone, size zone, drying zone, leasing zone, winding zone (also combs) and pass the yarn from them by calculating the time taken for doing this. Repeat this exercise for two different qualities.	Oral Test Practical demonstration	

Module 4: Perform Drawing In

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Perform drawing In process	02	04	Draw Yarn path diagram From heald dropper, heald wire and reed and pass the yarn from them of 5 inch fabric width. Repeat this exercise of two qualities.	Written Test Practical demonstration	

Module 5: Weave Fabric

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Check yarn breakage and fabric quality	0.5	3.5	Calculate No of defects occurring in one hours like yarn breakage, broken end, double pick etc and fabric quality in terms of warp count, weft count, yarn finenesses and width and submit the report.	Practical.	
Start the machine	0.5	2.5	To prepare the sample of woven fabric of 1 meter length by observing all motions of loom and submit the fabric defect less.	Practical working and oral questioning.	

Module 6: Maintenance of the Machine

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Cleaning the machine and its parts	01	03	Submit the Picture of un cleaned and cleaned machine and its parts and what are the tools of cleaning	Practical and oral assessment	
Lubrication of main machine parts	01	04	Submit the Picture of lubricated machine parts and what are the types of lubrication with respect to machine parts.	Practical and oral assessment	

Module 7: Perform Inspection

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Inspection of the fabric and its grading	01	05	Submission of ten faulty fabrics after mending also along its grading and also write down the types of faults.	Practical and oral assessment.	

Module 8: Weave Fabric

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Start Machine	0.5	02	How to start a loom.	Practical demonstration.	
Check yarn breakage and fabric quality	1.5	0.5	Demonstrate the procedure of quality checking.	Oral Test Written Test.	
Check machine working	0.5	0.5	Explain the machine working.	Written test	
Check running drawing in faults	0.5	02	Identify different drawing in faults on running loom.	Practical demonstration.	

Module 9: Perform Maintenance

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Clean machine	0.5	0.5	Explain the parameters of machine cleaning	Written test Oral test	
Maintenance of machine.	0.5	0.5	Demonstrate maintenance schedules of machine.	Oral Test Written Test.	

Module 10: Perform Inspection / Fault remedies

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Check fabric quality	0.5	2.5	Explain different quality parameters.	Written Test Practical Demonstration.	
Perform mending	0.5	0.5	Explain the mendable and non mendable faults	Written Test Oral Test	
Carry out grading of fabric	0.5	0.5	Demonstrate about different grading systems.	Written Test Oral Test	
Carry out packing	0.5	1.5	Identify different packing types and materials.	Practical demonstration.	

Module 11: Adopt safety precautions

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Work place management.	0.5	0.5	Demonstrate different parameters of work place management	Oral Test Written Test	

Module 12: Develop professionalism

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Organizational behavior	1.5	0.5	Explain different factors involved in organizational behavior.	Written Test	

Module 13: Communicate with others.

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
Communicate with customer	1.5	0.5	Explain the requirements of a customer according to contract.	Oral Test Written Test	
Communicate with supervisors	1.5	0.5	Demonstrate the parameters of Communication with supervisors.	Written Test	
Communicate with co workers.	1.5	0.5	Demonstrate the parameters of Communication with co workers.	Written Test.	

Supportive notes

- **Resources requires**

Proper labs or weaving mill for performing the activities of warping, sizing, drawing In , looms and faulty fabrics.

- **Books**

- Handbook of Weaving by Sabit adanur (sulzer) latest edition.
- Fabric Structure and Designing by N.Gokarneshan.

List of Tools, Machinery & Equipment

Name of Trade	Fabric Manufacturing
Duration	1 Year

Sr. No.	Name of Item/ Equipment / Tools	Qty.
1.	Warping machine	1
2.	Sizing machine	1
3.	Loom	1
4.	Pick counting Glass	20
5.	Comb	20
6.	Plukers	20
7.	Yarn strength tester	1
8.	GSM cutter	10
9.	Weighing Balance	10

List of Consumable Supplies

Name of Trade	Fabric Manufacturing (Weaving)
Duration	1 Year.

Sr. No.	Name of Consumable Supplies
1.	Yarns of different counts. (Cones).
2.	Fabrics of different qualities.
3.	Cutter.

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