Curriculum
For
Certificate in Machine Knitting Operator
(Duration: 1 Year)
Code:VI87S012
(2013)

Table of Contents

1. Introduction Template

Name of course: Machine Knitter/ Knitting Machine Operator

Duration: 01 year

The course aims to provide a career oriented training that will help the individual to learn the versatility of knit fabric and to effectively and efficiently operate the machine that will lead a professional career towards all industries related to Textile.

Knitting and Operating are the main subjects for Machine Knitter. The course will provide a complete training that is needed for small and commercial entrepreneurship.

Overall objective of course:

- To acquaint the students with different kind of knitting machines, assembling and proper handling with safety measures.

- To practice knitting and making simple pattern on knitting machine.

- To enable the trainees to become proficient in machine knitting.

- To help the trainees to efficiently and effectively operate the knitting machine.

- To enable the trainees to identify a variety of knit stitches and patterns.

- To enable the trainees to prepare decorative knitted garments by way of embroidery and graphing.

- To teach the trainees different methods of stitching the knitted garments with special reference to cut and bind method

- To make them understand the importance of blocking knit sections before assembling into garments.

- To obtain experience incorporating varied stitch applications into a finished product.

- To become confident in explaining procedures and techniques in an informal seminar forum

Competencies gained after completion of course:

Knowledge base:

- To know how to practice knitting and making simple pattern on knitting machine

- To understands the processes involved in knitting industries.

- To understands the knitting type and knit constructions.

- To understands the knit fabric faults.

Skilled base:

- Able to use different kinds of knitting machines with its' assembling and proper handling

- Able to make simple patterns and decorative patterns on knitting machine

- Able to make a baby set, gent pullover

- Able to maintain the machine

- Will be a professional knitting machine operator

Job opportunities available immediately and in the future:

After completing this course, the pass outs may join any Textile industry/ entrepreneurship, educational institutes and testing labs. They can work in an industrial home and can open knitting/hosiery factory. They can work in any cottage industry and bulk order handling.

Trainee entry level: Matric

Minimum qualification of trainer: Bachelors or equivalent (DAE relevant)

Medium of Instruction i.e. language of instruction: Urdu
- Sequence of the modules:

  Module 1: adopt safety precautions
  Module 2: operate hand flat bed machine
  Module 3: operate hand circular knit machine
  Module 4: operate circular knit machine
  Module 5: operate v bed flat machine
  Module 6: operate jacquard machine
  Module 7: carry out basic maintenance
  Module 8: Analysis Fabric
  Module 9: Fabric Fault Management
  Module 11: Develop Professionalism
  Module 12: Communicate with others.

- Timeframe of assessment:

  Duration: 1 year
  Hours: 1600 hours
  Theory:320 hours and Practical: 1280 hours

2. Overview about the program –Curriculum for Machine Knitter/ Machine Knitting Operator

Module Title and Aim	Learning Units	Theory[1] Days/hours	Workplace[2] Days/hours	Timeframe of modules
Module 1: Adopt safety precautions	1. Safety of yourself 2. Safety of machine 3. Safety of tools	28 hrs	112 hrs	Independent
Module 2 Operate hand flat bed machine	1. Set yarn path 2. Placement of feeder and carriage 3. Adjust needles/adjust stitch length 4. Form / make zero course 5. Adjust comb / adjust fabric bracket 6. Adjust dead weight 7. Perform knitting 8. Carry out minor maintenance	34 hrs	136 hrs	Independent
Module 3 Operate Hand circular knit machine	1. Adjust yarn passage 2. Adjust cam and feeder 3. Adjust needles and stitch	32 hrs	128 hrs	Module 1

	length 4. Draw course 5. Adjust dead weight 6. Perform knitting 7. Carry out minor maintenance			
Module 4 Operate Circular Knit Machine	1. Follow instruction 2. Adjust parts of machine 3. Adjust stitch length 4. Take sample before processing 5. Carry out knitting production 6. Monitor machine performance	32 hrs	128 hrs	Module 2
Module 5 Operate V Bed Flat Machine	1. Collect job card 2. Adjust parts of machine 3. Adjust stitch length 4. Take sample before processing 5. Carry out knitting production 6. Monitor machine performance 7. Carry out minor	34 hrs	136 hrs	Module 3

	maintenance			
Module 6 Operate Jacquard Machine	1. Select design 2. Placement of repeat 3. Acquired approval 4. Adjust parts of machines, Adjust stitch length 5. Take sample before processing 6. Carry out knitting production 7. Monitor machine performance 8. Carry out minor maintenance	34 hrs	136 hrs	Module 4
Module 7 Carryout Basic Maintenance	1. Carry out cleaning 2. Inspect / check parts of machine 3. Replace faulty	24 hrs	96 hrs	Module 5
Module 8 Analysis Fabric Standard / End Product	1. Carry out table inspection 2. Check needle line 3. Check sinker line 4. Check stain line 5. Check stitch length 6. Check knit	34 hrs	136 hrs	Module 6

	construction 7. Yarn thick and think places			
Module 9 Fabric Faults Management	1. Check needles setting 2. Check Yarn Problems 3. Check machine setting problem	29 hrs	116 hrs	Module 7
Module 10 Communicate with others	1. Communicate with people in relevant market 2. Communicate with the supervisor 3. Communicate with co-workers	26 hrs	104 hrs	Independent
Module 11 Develop Professionalism	Organizational behavior	18 hrs	72 hrs	Independent

3. (Machine Knitter/ Knitting Machine Operator)Curriculum Contents (Teaching and Learning Guide)

Module1: Adopt safety precautions
Objective of the Module: To espouse safety precuations before starting work on the floor of knitting unit in order to avoid from any problem or damange.
Duration: 140 hrs...Theory :28 hrs and Practical:112 hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration Theory/Practical	Materials Required	Learning Place
1. Safety of yourself	To be able to safe our self from any upcoming injury/accident in the working area.	Knowledge of: Safety precaution in terms of keep safe distance from the machine, handle the needles and weight carefully Ability to: To handle the machine carefully such as its needles, weight etc.	10TH/40 PR hrs	Safety tools	Lab Class
2. Safety of machine and tools	To save the machine from any damage such as needle breakage, cams, tracks damage by using its tools	Knowledge of: Awareness of machine parts such as needles, weights, carriage, cams, feeders, guides, tensioners etc. Ability to: to handle or use the machine and its tools carefully.	18TH/72PR hrs	Safety tools	Lab Class

Module2: Operate hand flat bed machine
Objective of the Module: To enable the trainee to operate the hand flat bed machine efficiently and effectively.
Duration: 170 hrs..Theory: 34hrs   and Practical: 136 hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Set yarn path	To pass the yarn from various parts of the hand flat machine such as tensioners, guides, feeders.	Knowledge of: Yarn passage in terms of various tensioners, feeders, carriage and beds Ability to: To pass the yarn from various parts of the machine effectively and efficiently so that yarn passage must be clear.	7TH/20PR hrs	Yarn and knitting machine.	Lab Class
2. Placement of feeder and carriage	To place the carriage and feeder on the machine according to the requirement of the order efficiently and effectively.	Knowledge of: Position of feeder and carriage at the right side or left side of the machine with respect to design and type of knit construction either rib, plain or interlock Ability to To adjust and place the carriage and feeders effectively and efficiently on the machine as per	4TH/10 PR hrs	Feeders ,carriage and knitting machine.	Lab Class

		fabric requirement.			
3. Adjust needles and stitch length	To do the adjustment of needle and stitch length efficiently and effectively.	Knowledge of: Position of needles and its placement and adjust the stitch length with respect to design and type of knitting either rib, plain or interlock Ability to: To adjust the needles and stitch length by using knob of the machine effectively and efficiently.	3TH/10PR hrs	Knitting Needles, pick counting glass, tools(mainte nance)	Lab Class
4. Form / make zero course	To make draw course or zero course before production starts effectively.	Knowledge of: How to make the zero/draw course that is essential for gripping the loops into needles hook for production. Ability to: To make the zero course effectively and efficiently so that further knitting can be done easily it become the supporting course.	6TH/35PR hrs		Lab Class
5. Adjust comb/	To set the	Knowledge of:	2TH/09PR		

adjust fabric bracket	comb on the machine along the closing brackets effectively so that perform the take down motion perfectly.	How to set the comb such as place at the bottom of the machine along its bracket so that can hold the draw course tightly Ability to: To fix the comb and bracket on the machine in order to maintain the take down motion accurately.	hrs		
6. Adjust dead weight	To do the adjustment of dead weight under the machine which works as sinker or holds the fabric perfectly.	Knowledge of: Use of dead weight as sinker Ability to: To adjust the dead weight accurately such that their alignments towards fabric take down must be maintained and accurate.	5TH/16 PR hrs		
7. Perform knitting	To perform the knitting efficiently and effectively by using carriage of the machine that contain cam in it.	Knowledge of: How to move the carriage from left to right or right to left in order to perform the knitting after knowing the right type of knit cam such as knit,tuck and miss cam and how to set the	4TH/18PR hrs		

| | | gaiting with respect to type of knitting such as it is interlock, rib etc

Ability to:
To perform the knitting accurately by using the required type of cam in it such as knit cam, tuck cam, miss cam along gaiting type such as staggered or face to face type of gaiting. | | | |
|---|---|---|---|---|---|
| 8. Carry out minor maintenance | To do the maintenance such as oiling, cleaning and setting knobs. | Knowledge of: How to do cleaning and oiling by sing tools such as oil gun, dusters and set the knobs according to the stitch length and gaiting type with respect to end product. | 3TH/36 PR hrs | | |

Module3: Operate Hand circular knit machine
Objective of the Module: To enable the trainee to operate the hand circular knitting machine effeciently and effectively.
Duration: 160 hrs   Theory: 32 hrs and Practical: 128. hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Adjust yarn passage	To do the adjustment of yarn passage from various machine parts and also adjust the various knitting machine elements effectively and efficiently	Knowledge of: Yarn passage from various machine parts i-e tensioners, guides, feeders, needle bed and also adjustment of the cam, feeder, needles, stitch length with respect to knit type and knit construction. Such as plain,rib or interlock etc etc

Ability to: To pass the yarn from the various machine elements such as cams,feeders, needles, gaiting and its adjustment accurately | 2TH/09 PR hrs | Yarn, needles, Feeders, cams | Lab Class |
| 2. Adjust cam and feeder | To place the carriage(with cam) and feeder on the machine according to the requirement of the order | Knowledge of: Position of feeder and carriage(along cam in it such as knit cam, tuck cam or miss cam) at the right side or left side | 1.5TH/5 PR hr | | |

	efficiently and effectively	of the machine with respect to design and type of knit construction either rib, plain or interlock Ability to To adjust and place the carriage and feeders effectively and efficiently on the machine.			
3. Adjust needles and stitch length	To do the adjustment of needle and stitch length efficiently and effectively	Knowledge of: Position of needles and its placement and adjust the stitch length with respect to design and type of knitting either rib, plain or interlock Ability to: To adjust the needles and stitch length by using knob of the machine effectively and efficiently.	1.5TH/3PR hr		
4. Draw zero course	To make draw course or zero course before production on knitting machine.	Knowledge of: How to make the zero/draw course that is essential for gripping the loops into needles hook for production.	7TH/20PR hrs		Lab Class

		Ability to: To make the zero course effectively and efficiently so that further knitting can be done easily it become the supporting course.			
5. Adjust dead weight	To do the adjustment of dead weight under the machine which works as sinker.	Knowledge of: Use of dead weight as sinker Ability to To adjust the dead weight accurately in the alignment of fabric take down position.	5TH/25PR hrs		Lab class
6. Perform knitting	To perform the knitting efficiently and effectively by using carriage of the machine that contain cam in it.	Knowledge of: How to move the carriage from left to right or right to left in order to perform the knitting after knowing the right type of knit cam such as knit, tuck and miss cam and how to set the gaiting with respect to type of knitting such as it is interlock, rib etc Ability to: To perform the knitting	6TH/35 PR hrs		

		accurately by using the required type of cam in it such as knit cam, tuck cam, miss cam along maintaining gaiting type such as staggered or face to face type.			
7. Carry out minor maintenance	To do the minor maintenance of the machine that includes oiling, cleaning and also knob setting.	Knowledge of: Maintenance of machine in terms of needle breakage, oiling, carriage setting that contains the knobs of stitch length if required. Ability to: To do the required maintenance of the knitting machine by setting machine elements like needles, cams, carriage and do necessary oiling and cleaning.	9 TH/23 PR hrs		

Module4: Operate Circular Knit Machine
Objective of the Module: To enable the trainee to operate the circular knitting machine effeciently and effectively so that it helps to complete the given order.
Duration: 160 hrs   Theory:32 hrs and Practical: 128 hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Follow instruction	To follow the given instruction of the order given by customer and also adjust the machine parts effectively according to the fabric manufacturing requirements.	Knowledge of: Setting of the machine parts i.e. needles, feeders, cams, Machine tensioners as per requirement of product such as plain fabric, rib or interlock etc Ability to: To adjust the machine parts accurately according to the requirement such as knob settings, tension setting.	3TH/10PR hrs		Lab Class
2. Adjust parts of machine	To do the adjustment of machine parts effectively and efficiently.	Knowledge of: Setting of the machine parts i.e. needles, feeders, cams, Machine tensioners as per requirement	3/10 hr		

		of product such as plain fabric, rib or interlock etc Ability to: to adjust the machine parts accurately such as needles, feeders, cams and other knitting elements.			
3. Adjust stitch length	To set the stitch length on the machine as per requirement of the fabric.	Knowledge of Importance of stitch length and its adjustment with respect to product type such as rib, plain or interlock etc Ability to: To adjust the stitch length accurately with respect to product type by adjusting the knob on the machine.	5TH/15PR hrs		Lab Class
4. Take sample before processing	To do the sampling before production in order to avoid bigger loss.	Knowledge of: Importance of sampling. Ability to: To make sample effectively and efficiently	5TH/15PR hrs		Lab Class

5. Carry out knitting production	To perform the knitting production accurately by checking its operations such as working of panel, movement of carriage and placement of feeder as per requirement.	Knowledge of: Production parameter such as machine and is ready to perform the production after checking the sample and machine parameter. Ability to: To carry out the production effectively and efficiently	6TH/63PR hrs		
6. Monitor machine performance	To check the machine performance parameters such as speed, breakage of yarn, needle breakage.	Knowledge of: Machine performance parameters such s its continuous working without stoppage, without damaging the needles and yarn etc Ability to: To monitor the performance of the machine by observing its operation effectively and efficiently.	10TH/15PR hrs		

Module5: Operate V Bed Flat Machine
Objective of the Module: To enable the trainee to operate the V Flat bed knitting machine effeciently and accurately in order to complete the given order.
Duration: 170   hrs   Theory: 34....... hrs   and   Practical:136......... hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Collect job card	To get the instruction for the order as per customer requirement and adjust the machine parts effectively	Knowledge of: Setting of the machine parts such as needles, feeders, cams, Machine tensioners as per requirement of product such as plain fabric, rib or interlock etc Ability to: to adjust the machine parts accurately	1TH/05PR hrs	Yarn Wool	Lab Class
2. Adjust parts of machine	To do the adjustment of machine parts effectively and efficiently.	Knowledge of: Setting of the machine parts i.e needles, feeders, cams, Machine tensioners as per requirement of product such as plain fabric, rib or interlock etc Ability to: to adjust the machine parts accurately such as needles, feeders, cams and other knitting elements by using tools	4TH/15PR hrs		

3. Adjust stitch length	To set the stitch length and its importance in knitting machine as per requirement of the order.	Knowledge of : Importance of stitch length and its adjustment with respect to product type such as rib, plain or interlock etc e Ability to: To adjust the stitch length accurately with respect to product type by setting its knob.	4TH/20PR hrs	Yarn Wool	Lab Class
4. Take sample before processing	To do the sampling before production in order to avoid bigger loss.	Knowledge of: Importance of sampling. Ability to: To make sample effectively and efficiently for final production of the sample.	5TH/15PR hrs	Yarn Wool	Lab Class
5. Carry out knitting production	To perform the knitting production accurately.	Knowledge of: How to move the carriage from left to right or right to left in order to perform the knitting after knowing the right type of knit cam such as knit, tuck and miss cam and how to set the gaiting with respect to type of knitting such as it is interlock, rib etc	10TH/40P R hrs		

		Ability to: To perform the knitting accurately by using the required type of cam in it such as knit cam, tuck cam, miss cam along maintaining gaiting type such as staggered or face to face type			
6. Monitor machine performance	To check the machine performance parameters such as its speed, stoppages.	Knowledge of: Machine performance parameters such s its continuous working without stoppage, without damaging the needles and yarn etc Ability to: To monitor the performance of the machine by observing its operation effectively and efficiently.	05TH/20PR hrs		
7. Carry out minor maintenance	To do the minor maintenance of the machine that includes oiling, cleaning and also knob setting.	Knowledge of: Maintenance of machine in terms of needle breakage, oiling, carriage setting that contains the knobs of stitch length if required	05TH/2PR hrs		

		Ability to: To do the required maintenance of the knitting machine by setting machine elements like needles, cams, carriage and do necessary oiling and cleaning.			

Module6: Operate Jacquard Machine

Objective of the Module: To enable the trainee to operate the Jacquard knitting machine effeciently and effectively

Duration: 170 hrs Theory: 34. hrs and Practical : 136 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Select design	To make the design and its repeat accurately according to the requirement of the order.	Knowledge of: Design , its repeat and its placement where it is to placed on the article or product on point paper or electronically in knitting notation Ability to: To make design repeat and its notation as well accurately with respect to given order.	2TH/06PR hrs	Point paper, designs	Lab Class
2. Placement of repeat	To set the design parameters on the machine such as setting of repeat on design wheel.	Knowledge of: Design punching on design wheels. Ability to: To place the design on design wheel as per requirement of the order.	01TH/06PR hrs		
3. Adjust parts of machines	To do the adjustment of machine parts accurately and effectively	Knowledge of: Machine elements such as cams, feeders, needles, Tensionors, beds, etc and its adjustment. Ability to: to adjust the machine parts effectively and	4TH/26PR hrs	Machine tools	

		accurately.			
4. Adjust stitch length and gaiting	To set the stitch length and gaiting with respect to order requirement.	Knowledge of : Importance of stitch length and its adjustment with respect to product type such as rib, plain or interlock etc along its gaiting such as staggered and face to face. Ability to: To adjust the stitch length and gaiting accurately with respect to product type	5TH/20PR hrs	Machine tools	Lab Class
5. Take sample before processing	To do sampling before production in order to avoid bigger loss.	Knowledge of: Importance of sampling. Ability to: To make sample effectively and efficiently	5TH/20PR hrs		Lab Class
6. Carry out knitting production	To perform the knitting production accurately after checking machine parameter such as speed or tension and panel too.	Knowledge of: Production parameter such as machine is ready to perform the production after checking the sample. Ability to: To carry out the production effectively and efficiently after checking all important parameter of machine like speed, panel etc.	8TH/30PR hrs		Lab
7. Monitor	To check the	Knowledge of:	4TH/10PR		

	machine performance	machine performance parameters such as speed, breakage of yarn , needle breakage.	Machine performance parameters such s its continuous working without stoppage, without damaging the needles etc Ability to: To monitor the performance of the machine by observing its operation effectively and efficiently.	hrs		
8.	Carry out minor machine maintenance	To do the minor maintenance of the machine that includes oiling, cleaning and also knob setting.	Knowledge of: Maintenance of machine in terms of needle breakage, oiling, carriage setting that contains the knobs of stitch length if required Ability to: To do the required maintenance of the knitting machine by setting machine elements like needles, cams, carriage and do necessary oiling and cleaning	03TH/10PR hrs		

Module7: Carryout Basic Maintenance
 Objective of the Module: To enable the trainee to carry out the basic maintenance of the knitting machines accurately.
Duration: 120 hrs   Theory: 24 hrs   and Practical: 96 hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Carry out cleaning	To do the cleaning of the machine.	Knowledge of: Cleaning tools, cleanable parts that's are needles, beds, feeders, guide etc Ability to: To do cleaning of the machine parts accurately	10TH/40 PR hrs	Maintenance tools	Lab Class
2. Inspect / check parts of machine	To do inspection and checking of the machine parts	Knowledge of: Machine elements such as cams, feeders, needles, Tensionors, beds etc and its condition if not working properly means needles hooks are damaged, rack lever not working, feeder yarn guide or any lever not working must be replaced. Ability to: To Inspect the machine parts effectively and accurately such as cams, feeders, carriage, beds, needles,	07TH/28 PR hrs	Maintenance tools	
3. Replace faulty parts	To check the machine and its parts and replace the faulty parts	Knowledge of: Machine parts such as needles, feeders, cams, carriage, take down levers. Ability to: to replace the faulty parts effectively and efficiently.	07TH/28 PR hrs	Spare parts	

Module8: Analysis Fabric Standard / End Product
Objective of the Module: To analyse the fabric and its quality accurately by the trainee according to given order.
Duration: 170... hrs   Theory: 34 hrs   and   Practical:136 hrs

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Carry out table inspection	To do the inspection and how to inspect the fabric with respect to quality demanded by the customer	Knowledge of: Fabric faults such as needle line, sinker line, holes, stitch length, stain line, knit construction and yarn thick and thin places Ability to: To do inspection of the faults in the fabric and do its remedies effectively and efficiently.	06TH/16PR hrs	Fabrics	Lab Class
2. Check needle line	To find out the needle line in the fabric.	Knowledge of: What is needle line and its impact in fabric quality. Ability to: To identify the fault of needle line that will be mark or hole in the fabric.	07TH/20PR hrs		
3. Check sinker line	To check the sinker line defect in the fabric.	Knowledge of: Sinker line defect and its impact on the fabric. Ability to: To identify the sinker line defect from the fabric and able to remove it by	07TH/20PR hrs		

		replacing the sinker from the machine.			
4. Check stain line	To identify the stains on the fabric effectively.	Knowledge of: Stains and its causes Ability to: Able to figure out the stain line defect from the fabric and remove it by using detergents or other solutions as per requirements.	07TH/20PR hrs		
5. Check stitch length	To ensure the required stitch length as per requirement of the fabric.	Knowledge of: Stitch length= no of Wales/Given length of the yarn. Ability to: Able to check out the stitch length of the fabric effectively according to the requirement by using formula.	07TH/20PR hrs		
6. Check knit construction	To ensure the required knit binding of the fabric.	Knowledge of: Knit construction like purl, plain, rib, interlock and etc also and how to identify the knit construction by using pick counting glass. Ability to: to be able to check the knit bindings as per requirement of the order by using pick counting glass effectively.	07TH/20PR hrs		
7. Yarn thick and think places	To check the yarn quality from the fabric such	Knowledge of: Yarn qualities such as thick thin places, evenness.	07TH/20PR hrs		

	that is it contain any thick thin places in it.	Ability to: To check the yarn quality in terms of its surface like thick or thin places effectively and efficiently.			

Module 9: Fabric Faults Management
 Objective of the Module: To enable the trainee to manage the fabric faults effectively.
Duration: : 130 hours Theory:26hours Practical: 104 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Check needles setting	To do the setting of the needles in order to manage the fabric faults.	Knowledge of: Needles adjustment Ability to: To adjust the setting of the needles accurately.	05TH/19PR hrs	Yarn Wool	Lab Class
2. Check Yarn Problems	To ensure the yarn quality with respect to requirements of the end product.	Knowledge of: Yarn problems such as its defects like thick/thin, fineness, color, strength etc Ability to: To check the yarn problems and its remedies accurately.	06TH/25PR hrs		
3. Check machine setting problem	To do the setting of knitting machine accurately.	Knowledge of: Gauge, needle bars, carriage settings, cam setting etc Ability to: To maintain machine setting efficiently and effectively such as gaiting setting, carriage settings, needle setting, lever setting, comb setting, feeder settings etc	15TH/60PR hrs		

Module 10: .....Communicate with others
Objective of the Module: ...To communicate effectively and efficiently inside or outside the organization.
Duration: 120 hours Theory: 24 hours Practical: 96 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
1. Communicate with customers	Communication skills verbal and non verbal	Knowledge of: Communication skills Oral and written Ability to: to communicate effectively verbally and non verbal	08TH/32PR hrs	Books	Class room
2. Communicate with supervisors	Communication skills	Knowledge of: Communication skills Oral and written Ability to: to communicate effectively verbally and non verbal	08TH/32PR hrs		
3. Communicate with co-workers	Communication skills	Knowledge of: Communication skills Oral and written	08TH/32PR hrs		

		Ability to: to communicate effectively verbally and non verbal			

Module 11: Develop Professionalsim
Objective of the Module: ...To understand the Professionalism of the work place in order to work professionally.
Duration: 90 hours Theory: 18. hours Practical: 72 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration THR/PR	Materials Required	Learning Place
Organizational behavior	To behave in the organization effectively by knowing and utilizing all parameters of organizational behavior.	Knowledge of: Organizational behavior skills, Bloom taxonomy, industrial psychology Ability to: To interact with other employees also ,Participate in skill test/ competition Consult with experts, Interact with co-workers, Participate in trainings	18TH/72PR hrs	Books	Class room

4. Assessment Template

Module 1 (Adopt safety precautions)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Safety to yourself	5 min	2 hr	Tell about different methods of operator's safety Demonstrate the safety precautions for operator	Oral Practical	
2. Safety of machine	5 min	2 hr	Tell about the safety of knitting machine for this purpose needle blockage is used.	Oral Practical	
3. Safety of tools	5 min	2 hr	Tell about the correct path of yarn that can affect the working of different tools of knitting machine	Oral Practical	

Module 2 (operate hand flat bed machine)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Operate yarn path	30 min	1 hr	Draw diagram of Yarn path	Practical	
2. Placement of feeder and carriage	30 min	1 hr	How Feeder is align with the carriage. It must be in right or left hand of the machine, check it and give marks to them.	Oral	
3. Make zero course	30 min	1 hr	Put all stitches in the hooks of the needles in the beginning	Practical	
4. Adjust stitch length	30 min	1 hr	Give samples by using various stitch lengths and mark them.	Oral Practical	
5. Perform knitting	30 min	1 hr	How knitting is done without any defects such as hole and according to the requirement?	Oral Practical	

Module 3 (operate hand circular machine)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Operate yarn path	30 min	1 hr	Draw diagram of Yarn path	Practical	
2. Placement of feeder and adjust cams	30 min	1 hr	How Feeder is align with the carriage. It must be in right or left hand of the machine, check it and give marks to them.	Oral	
3. Make zero course	30 min	1 hr	Put all stitches in the hooks of the needles in the beginning	Practical	
4. Adjust stitch length	30 min	1 hr	Give samples by using various stitch lengths and mark them.	Oral Practical	
5. Perform knitting	30 min	1 hr	How knitting is done without any defects such as hole and according to the requirement?	Oral Practical	

Module 4 (operate circular knit machine)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Operate yarn path	30 min	2 hr	Draw diagram of Yarn path	Practical	
2. Placement of feeder and adjust cams	30 min	2 hr	How Feeder is align with the carriage. It must be in right or left hand of the machine, check it and give marks to them.	Oral	
3. Make zero course	30 min	2 hr	Put all stitches in the hooks of the needles in the beginning	Practical	
4. Adjust stitch length	30 min	2 hr	Give samples by using various stitch lengths and mark them.	Oral Practical	
5. Perform knitting	30 min	2 hr	How knitting is done without any defects such as hole and according to the requirement?	Oral Practical	

Module 5 (operate V Bed Flat Machine)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Operate yarn path	30 min	2hr	Draw diagram of Yarn path	Practical	
2. Placement of feeder and adjust cams	30 min	2hr	How Feeder is align with the carriage. It must be in right or left hand of the machine, check it and give marks to them.	Oral	
3. Make zero course	30 min	2hr	Put all stitches in the hooks of the needles in the beginning	Practical	
4. Adjust stitch length	30 min	2hr	Give samples by using various stitch lengths and mark them.	Oral Practical	
5. Perform knitting	30 min	2 hr	How knitting is done without any defects such as hole and according to the requirement?	Oral Practical	

Module 6 (operate Jaquard machine)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Select jacquard design	45 min	2 hr	How to select knitting notation according to design parameter and make booklet of various jacquard designs	Oral Practical	
2. Adjust design	45 min	2 hrs	Make sample of the fabric that shows correct adjustment of the design on the machine either it is electronically or manually jacquard systems.	Practical	

Module 7 (Carryout Basic Maintenance)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Inspect machine parts	15 min	1 hr	Check the condition of various machine parts	Practical	
2. Replace faulty parts	30 min	1 hr	Give methods to replace different machine parts Do replacement of machine parts	Oral assessment Oral Practical	

Module 8 (Analysis fabric standard and end product)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Check stitch length	30 min	1 hr	How to check the stitch length of knitted fabric either it is according to the requirement?	Oral Practical	
2. Check thick/thin places of yarn	30 min	1 hr	Note Fabric observations by using magnifying glass in order to find any thick/thin places of the yarns	Practical	
3. Check knit construction	30 min	1 hr	Find knit construction by Using pick counting glass in order to check knit structure.	Practical	
4. Check needle line, sinker line and stain line.	30 min	1 hr	Find out fabric defect with respect to needle line, sinker line, stain line and make fabric fault book by mentioning type of fault and give marks/	Oral Practical	

Module 10 (Communication with others)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Communicate with customers	30 min	1 hr	What are verbal nor verbal communications ?	Oral	
2. Communicate with Supervisors	30 min	1 hr	What are the barriers of communication?	Oral	
3. Communicate with Co-workers	30 min	1 hr	How to do effective communication?	Oral assessment	

Module 11 (Develop Professionalism)

Learning Units	Theory Days/hours	Workplace Days/hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
1. Organizational behavior	30 min	1 hr	What is bloom taxonomy? What is the difference between attitude and behavior	Oral	

Supportive notes

- Books:
  - ✓ Knitting technology by David J. Spencer
  - ✓ Big Book of Knitting by Katharina Buss
  - ✓ Easy Knitted Accessories by Jeanette Trotman
- Fabric analysis books/sheets
- Handouts/slides

5. List of Tools, Machinery & Equipment

Name of Trade	Machine Knitter/ Knitting Machine Operator
Duration	**01 year**

Sr. No.	Name of Item/ Equipment / Tools	Qty.
1.	Flat bed knitting Machine	25
2.	V- Bed Flat Machine	02
3.	Jacquard Machine	01
4.	Hand circular Knit machine	04
5.	Table with side drawers	25
6.	Student Chairs	25
7.	Teacher table	01
8.	Teacher chair	01

6. List of Consumable Supplies

Name of Trade	Machine Knitter/ Knitting Machine Operator
Duration	01 year

Sr. No.	Name of Consumable Supplies
1.	Tool box
2.	Needles
3.	Feeders
4.	Carnes
5.	Sinkers
6.	Tensioners
7.	Weight
8.	Comb
9.	Master wheel
10.	Timing belts
11.	Stitch transferring tools
12.	Winders
13.	Brackets
14.	Oil pump
15.	Rack lever
16.	Sun proof platting
17.	Measuring tape
18.	Sensors
19.	Scissors
20.	Lycra attachment
21.	Brushes
22.	Cam lever
23.	Yarn/ wool
24.	Thread
25.	Pattern sheets
26.	Machine oil

7. Contributions for Development of This Curriculum

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