DIPLOMA IN TEXTILE ENGINEERING SYLLABUS
PROBIDHAN-2022
5TH SEMESTER

Subject Code	Subject Name	Period perWeek		Credit
21451	Apparel Manufacturing-II	T	P	C
		3	3	4

This course will be conducted by: Rifah Nanziba

1) Learning Outcome (Theoretical/Knowledge):
   - ➢ Explain sewing room operation processes.
   - ➢ Describe apparel finishing processes.
   - ➢ Interpret apparel inspection systems.
2) Learning Outcome (Practical/Skill):
   - ➢ Identify the formation of stitch and seam.
   - ➢ Demonstrate different industrial sewing machine operations.
   - ➢ Make sample garments.
   - ➢ Prepare a trim card.

Detailed Syllabus (Theory)

Unit	Topics with Contents	Final Marks
1.	**Seam** 1.1 Define seam. 1.2 Classify seam. 1.3 Describe different types of seam.	3
2	**Stitch** 2.1 Define stitch. 2.2 Classify stitch based on ISO. 2.3 Discuss ISO stitch class 100, 200, 300, 400, 500 and 600. 2.4 Explain the principle of lock stitch formation. 2.5 Explain the principle of chain stitch formation. 2.6 Compare lock stitch and chain stitch.	10

	2.7 Discuss the principle of multi-thread chain stitch formation. 2.8 Explain the principle of hand stitch formation. 2.9 Describe the principle of overlock stitch formation. 2.10 Discuss the principle of covering chain stitch/ flat-lock formation.	
3	**Feed Mechanism** 3.1 State the feed mechanism of the sewing machine. 3.2 Describe the basic components of the feed mechanism. 3.3 Classify feed mechanisms of sewing machines. 3.4 Discuss the drop feed system. 3.5 Explain differential bottom feed system. 3.6 Discuss adjustable top feed system. 3.7 Describe unison/ walking feed system. 3.8 Discuss needle feed system. 3.9 Explain puller feed system.	5
4	**Sewing Needle** 4.1 Discuss sewing needles. 4.2 Mention function of sewing needle. 4.3 Explain needle size/number. 4.4 Mention the classification of sewing needles. 4.5 Discuss the effect of wrong needle selection. 4.6 Describe different needle points. 4.7 Sketch needle cutting point and cloth point. 4.8 Explain needle cutting point and cloth point.	10
5	**Sewing Thread** 5.1 Define sewing thread. 5.2 Classify sewing thread. 5.3 Describe different sewing threads. 5.4 Explain the factors that affect the function of sewing thread. 5.5 State different ticket number systems. 5.6 Mention the features of a good quality sewing thread. 5.7 Distinguish between yarn and sewing thread. 5.8 Define thread finish. 5.9 Mention the characteristics of thread finish. 5.10 Describe different thread packages.	5
6	**Sewing Machine** 6.1 State sewing machine. 6.2 List the types of sewing machines used in the garment industry. 6.3 Mention the features of a lock stitch machine. 6.4 State the characteristics of chain stitch machines. 6.5 Discuss the characteristics of an over lock machine. 6.6 State the specification of the zigzag lock stitch machine. 6.7 State the specification of the zigzag chain stitch machine.	10

	6.8 State the specification of flat lock machine. 6.9 Mention the features of button hole machines. 6.10 Mention the features of button attaching machines.	
7	**Components of Sewing Machine** 7.1 State the components of a sewing machine. 7.2 Discuss the manually operated sewing machine. 7.3 Discuss power-driven sewing machines. 7.4 Distinguish between manually operated sewing machine and power-driven sewing machine.	4
8	**Bed Types of Sewing Machine** 8.1 Classify bed types of sewing machine. 8.2 Explain flat-bed sewing machines. 8.3 Describe a raised bed sewing machine. 8.4 Explain a post bed sewing machine. 8.5 Describe cylinder bed sewing machine. 8.6 Discuss feed of the arm bed sewing machine. 8.7 Describe a side bed sewing machine.	4
9	**Sewing Faults** 9.1 List sewing faults. 9.2 Explain causes of different sewing faults. 9.3 Describe remedies of different sewing faults. 9.4 Calculate sewing faults according to DHU.	4
10	**Working Aids** 10.1 Define working aids. 10.2 List the working aids. 10.3 State the importance of working aids. 10.4 Describe different types of working aids.	5
11	**Trimmings and Accessories** 11.1 Define trimmings and accessories. 11.2 List the trimmings and accessories used in garment industries. 11.3 Describe types of labels. 11.4 Explain different international care label codes. 11.5 Differentiate between label and motif. 11.6 Describe different interlining. 11.7 Distinguish between sewn and fusible interlining. 11.8 Differentiate between interlining and lining. 11.9 Explain different types of buttons. 11.10 Describe different types of zippers.	8
12	**Pressing and Finishing** 12.1 Define finishing.	8

	12.2 State the necessities of thread cutting. 12.3 Mention the objectives of pressing. 12.4 Describe the categories of pressing. 12.5 Mention the factors of pressing. 12.6 List the different equipment of pressing. 12.7 Discuss different pressing techniques.	
13	**Folding and Packing** 13.1 Define folding and packing. 13.2 Classify folding. 13.3 Describe different types of folding methods. 13.4 Describe different types of packing. 13.5 Discuss the methods of folding and packing.	4
14	**Alternative Methods of Joining** 14.1 Define an alternative method of joining fabric. 14.2 Classify alternative methods of joining fabric. 14.3 Describe welding, molding, adhesion and rivet joining processes. 14.4 Distinguish between sewing and alternative methods of joining.	5
15	**Apparel Inspection** 15.1 Define Inspection. 15.2 State the objectives of inspection. 15.3 Classify inspection. 15.4 Describe pattern inspection, marker inspection, spreading inspection, cut-part inspection and packing inspection. 15.5 Explain 1 or 2 hourly inspection, Traffic light system, 7-0 system of inspection and Sewing End-line 100% inspections system. 15.6 Define AQL, DHU and TAP. 15.7 Discuss AQL final inspection procedure. 15.8 Explain different types of defects during inspection.	10
	Total	**90**

Detailed Syllabus (Practical)

Unit	Topics with Contents	Final Marks
1	**Identify different Stitch classes** 1.1 Identify stitch class-100 from a given sample/sketch. 1.2 Identify stitch class-200 from a given sample/sketch.	2

	1.3 Identify stitch class-300 from a given sample/sketch. 1.4 Identify stitch class-400 from a given sample/sketch. 1.5 Identify stitch class-500 from a given sample/sketch. 1.6 Identify stitch class-600 from a given sample/sketch. 1.7 Identify the machine needed for each class 1.8 Identify the appropriate number of needle, sewing thread and bobbin/looper thread in each stitch class from a given sample/sketch. 1.9 Sketch the figure onto a A4 size paper. 1.10 Maintain the record of the experiment performed.	
2	**Identify and Create different types of Seams** 2.1 Identify seam class-1 from given sample/sketch. 2.2 Identify seam class-2 from given sample/sketch. 2.3 Identify seam class-3 from given sample/sketch. 2.4 Identify seam class-4 from given sample/sketch. 2.5 Identify seam class-5 from given sample/sketch. 2.6 Identify seam class-6 from given sample/sketch. 2.7 Identify seam class-7 from given sample/sketch. 2.8 Identify seam class-8 from given sample/sketch. 2.9 Select appropriate folder to create each seam class. 2.10 Sketch the figure onto a A4 size paper. 2.11 Maintain the record of the experiment performed.	2
3	**Observe Specification and Practice Lock Stitch Sewing Machine** 3.1 Observe the Lock Stitch sewing machine for specification inscribed on the machine. 3.2 Identify different parts of a Lock Stitch sewing machine. 3.3 Perform threading operation in needle of a Lockstitch sewing machine. 3.4 Perform threading operation in the bobbin of a Lockstitch sewing machine. 3.5 Observe winding operation of bobbin on the bobbin. 3.6 Observe thread tension control point of a Lockstitch sewing machine. 3.7 Observe Stitch Per Minute (SPM) control point of a Lockstitch sewing machine. 3.8 Perform sewing operation. 3.9 Maintain the record of performed experiments.	2
4	**Observe Specification and Practice Chain Stitch Sewing Machine** 4.1 Observe the Chain Stitch sewing machine for specification inscribed on the machine. 4.2 Identify different parts of a Chain Stitch sewing machine. 4.3 Perform threading operation in needle of a Chain Stitch sewing machine. 4.4 Perform threading operation in looper of a Chain Stitch sewing machine. 4.5 Observe thread tension control point of a Chain Stitch sewing machine. 4.6 Observe Stitch Per Minute (SPM) control point of a Chain Stitch sewing machine. 4.7 Perform sewing operation.	2

	4.8 Maintain the record of performed experiment.	
5	**Observe Specification and Practice Over-Lock Sewing Machine** 5.1 Observe the Over-Lock sewing machine for specification inscribed on the machine. 5.2 Identify different parts of an Over-Lock sewing machine. 5.3 Perform threading operation in needle of an Over-Lock sewing machine. 5.4 Perform threading operation in lower and upper loopers of an Over-Lock sewing machine. 5.5 Observe thread tension control point of an Over-Lock sewing machine. 5.6 Observe Stitch Per Minute (SPM) control point of an Over- Lock sewing machine. 5.7 Perform sewing operation. 5.8 Maintain the record of performed experiment.	2.5
6	**Observe Specification and Practice Flat-Lock Sewing Machine** 6.1 Observe the Flat-Lock sewing machine for specification inscribed on the machine. 6.2 Identify different parts of a Flat-Lock sewing machine. 6.3 Perform threading operation in needle of a Flat-Lock sewing machine. 6.4 Perform threading operation in lower loopers of a Flat-Lock sewing machine. 6.5 Perform threading operation in the spreader of a Flat-Lock sewing machine. 6.6 Observe thread tension control point of a Flat-Lock sewing machine. 6.7 Observe Stitch Per Minute (SPM) control point of a Flat-Lock sewing machine. 6.8 Perform sewing operations. 6.9 Maintain the record of performed experiments.	2.5
7	**Observe Specification and Practice Fusing Machine** 7.1 Observe the fusing machine for specification inscribed on the machine. 7.2 Identify different parts of a fusing machine. 7.3 Select appropriate setting based on interning and fabric characteristics. 7.4 Perform fusing operation. 7.5 Maintain the record of performed experiments.	3
8	**Make a basic T-Shirt** 8.1 Observe the sorted and bundled cut panel. 8.2 Perform break down the sewing operation according to panel joining. 8.3 Observe the joining of different panels. 8.4 Perform sewing operation according to break down. 8.5 Construct a complete T-shirt 8.6 Maintain the record of performed experiments.	3
9	**Make a basic Pant** 9.1 Observe the sorted and bundled cut panel. 9.2 Perform break down the sewing operation according to panel joining. 9.3 Observe the joining of different panels.	3

	9.4 Perform sewing operation according to break down. 9.5 Construct a complete Pant. 9.6 Maintain the record of performed experiments.	
10	**Prepare Trim card** 10.1 Observe the required components of a complete trim card. 10.2 Identify different trimmings of a given apparel/sample. 10.3 Identify different accessories of a given sample. 10.4 Put together all the trimmings and accessories to make a list. 10.5 Perform trim card preparation. 10.6 Maintain the record of the experiment performed.	3
	Total:	**25**