

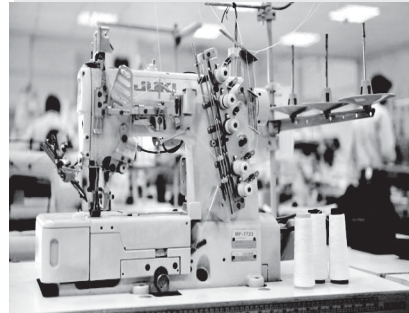
# 16TF305 GARMENT MACHINERY

Hours Per Week :

L	T	P	C
3	-	2	4

Total Hours :

L	T	P	WA/RA	SSH/HS	CS	SA	S	BS
45	-	30	15	15	-	-	-	-



## Course Description and Objectives:

This course offers basic knowledge of various types of fabric packages encountered in fabric spreading, functions of various fabric cutting machines, seams and stitches and discuss the basic parts of sewing Machines. Objective of this course is to provide the basic knowledge and skill for operating and utilizing the machinery used in garment making.

## Course Outcomes:

The student will be able to:

- know the various types of fabric packages in fabric spreading.
- describe the types and functions of various fabric cutting machines.
- understand the various types of needles, sewing threads.
- compare the different seams and stitches and the basic parts of sewing machines.

## SKILLS:

- ✓ *Operate the sewing machine*
- ✓ *Perform changes in different settings in sewing machine.*
- ✓ *Set the sewing machine parameters as per fabric.*
- ✓ *Operate specialized sewing machines.*

**ACTIVITIES:**

- *Collect Specifications of different sewing machines.*
- *List out the various parts in the different sewing machines.*
- *Collect various defects from cutting, sewing departments.*
- *Perform changes in the settings of different parts of sewing machine.*

**UNIT - 1****L-8**

**SPREADING** : Type of fabric packages received at garment industry, Manual spreading, Computerized spreaders, Spread relaxation, Types of spreads, NOW, NEW, NUD, Symmetrical and Asymmetrical patterns, effect on marker making, marker efficiency, factors affecting marker efficiency, marker duplicating methods, computer aided marker making.

**UNIT - 2****L-9**

**CUTTING MACHINES** : Introduction to cutting machines, types and functions of cutting machines, straight knife, round knife, band knife cutting machines, notches, drills, die cutting machines; computerized cutting machines, common defects in cutting and their remedies.

**UNIT - 3****L-9**

**PARTS OF SEWING MACHINE** : Types of needles, parts of needles and their function, needle size, sewing thread, properties of sewing threads, ticket number, fabric sewability, Basic parts of a sewing machine - needle, bobbin case/bobbin hook, loppers, loop spreader, threading fingers, throat plate, tongue chaining plates, take up devices, tensioner, feed dog, presser foot, folders and attachments.

**UNIT - 4****L-9**

**SEWING MACHINE SETTINGS** : Classification of sewing machines - basic SNLS machine, parts and their functions, adjustments, stand height, pedal, needle bar, presser foot, feed dog, differential feed ratio, reverse feed, stitch length selection, feed timing, needle and bobbin thread tension, stitch cycle timing diagram, Maintenance of SNLS machine, Common defects and remedies.

**UNIT-5****L-10**

**SPECIALIZED SEWING MACHINES** : Special purpose sewing machines - Feed-off-the-arm, button-hole sewing, button-sewing, bar, tack, blind stitch machines, over-lock machine, double-needle lock stitch machine, elastic band attaching machine, multi-needle chain stitch machine, single-needle machine with under-bed trimmer. Automation in sewing machines - automatic pocket sewing machine. Unit production system, Computerized sewing machines.

**LABORATORY EXPERIMENTS****Course Outcomes:**

The student will be able to:

- perform the cutting of different patterns using different knives.
- understand the major parts of sewing machines.
- know working of single needle sewing machine.
- explain special sewing machines for working and construction.

**List of Experiments:**

Total Hours-30

1. Study of various types of cutting machine for the working and construction.
2. Study of various types of cutting machine for the working and construction.
3. Study the various types of beds of the sewing machines.
4. Study the major parts of sewing machines.
5. Study of Needles for the sewing machine.
6. Study of sewing threads.
7. Study of single needle sewing machine for working and construction.
8. Study of overlock sewing machine for working and construction.
9. Study of special sewing machines for working and construction.
10. Study of feed off the arm machine for working and construction
11. Work aids and attachment for sewing machine.
12. Visit to garment unit.

**TEXT BOOKS:**

1. H. Carr and B. Latham, "The Technology of Clothing Manufacture", Om Book Service, 1994.
2. R.M Laing, J Webster, "Stitches and Seams", The Textile Institute, Manchester, UK,1998.

**REFERENCE BOOKS:**

1. S. Claire, "Sewing for the Apparel Industry", Prentice Hall, New Jersey, 2001.
2. J. Solinger, "Apparel Manufacturing Handbook", Reinhold Publications, 1998.