

INDUSTRIAL GARMENT MACHINERY

Weeks 1-4: Unit I – Sewing Machines

Week 1

- **Lecture 1:** Classification of Sewing Machines by Stitch Type and Machine Bed
- **Lecture 2:** Specialized Functions and Number of Needles in Sewing Machines
- **Lecture 3:** Power Source, Programmability, and Motor Types in Sewing Machines
- **Lecture 4:** Overview of Applications in Garment Assembly

Week 2

- **Lecture 5:** Introduction to Single Needle Lock Stitch (SNLS) Machines
- **Lecture 6:** Applications of SNLS in Garment Assembly
- **Lecture 7:** Double Needle Lock Stitch (DNLS): Features and Applications
- **Lecture 8:** Single Needle Chain Stitch (SNCS): Features and Applications

Week 3

- **Lecture 9:** Multi Needle Chain Stitch (MNCS): Features and Applications
- **Lecture 10:** Feed Off the Arm (FOA) Machine: Characteristics and Uses
- **Lecture 11:** Flat Lock (FL) Machine: Functions and Applications
- **Lecture 12:** 3-Thread Overlock (3TOL) Machine: Uses in Garment Finishing

Week 4

- **Lecture 13:** Bartack (BTK) Machine: Purpose and Applications
 - **Lecture 14:** Comparative Analysis of Various Sewing Machines
 - **Lecture 15:** Practical Insights: Identifying Sewing Machines for Specific Tasks
 - **Lecture 16:** Recap and Practice Quiz on Unit I
-

Weeks 5-6: Unit II – Single Needle Lockstitch (SNLS)

Week 5

- **Lecture 17:** Part List of SNLS Industrial Machine with Functions
- **Lecture 18:** Understanding the Mechanisms of SNLS Machines
- **Lecture 19:** Schematic Diagram of SNLS Machines: Key Components
- **Lecture 20:** Maintenance and Troubleshooting of SNLS Machines

Week 6

- **Lecture 21:** Practical Demonstration: SNLS Machine Operation

- **Lecture 22:** Application of SNLS Machines in Garment Assembly
 - **Lecture 23:** Recap and Discussion on SNLS Machine Parts and Functions
 - **Lecture 24:** Practice Quiz on SNLS Machines
-

Weeks 7-8: Unit III – Sewing Machine Work Aids and Safety Attachments

Week 7

- **Lecture 25:** Importance and Need of Work Aids in Sewing Machines
- **Lecture 26:** Classification of Work Aids: Types and Applications
- **Lecture 27:** Introduction to Safety Attachments in Sewing Machines
- **Lecture 28:** Classification of Safety Attachments

Week 8

- **Lecture 29:** Safety Measures for Operators in Garment Factories
 - **Lecture 30:** Practical Activity: Identifying Work Aids and Safety Attachments
 - **Lecture 31:** Case Studies on Safety Incidents in Garment Industry
 - **Lecture 32:** Recap and Practice Quiz on Work Aids and Safety Attachments
-

Weeks 9-11: Unit IV – Sewing Elements

Week 9

- **Lecture 33:** Six Major Elements of Sewing: Overview and Functions
- **Lecture 34:** Basic Diagram of a Sewing Needle: Parts and Functions
- **Lecture 35:** Needle Classification Based on Sewing Machines and Needle Point
- **Lecture 36:** Practical Session: Needle Selection for Specific Tasks

Week 10

- **Lecture 37:** Needle Size and Fabric Type Relationship
- **Lecture 38:** Types of Feed Mechanisms: Drop Feed, Needle Feed, and Differential Feed
- **Lecture 39:** Advanced Feed Mechanisms: Puller Feed and Walking Foot Feed
- **Lecture 40:** Practical Insights: Setting and Adjusting Feed Mechanisms

Week 11

- **Lecture 41:** Troubleshooting Issues with Sewing Needles and Feed Mechanisms
- **Lecture 42:** Recap and Practice Quiz on Sewing Elements
- **Lecture 43:** Group Discussion: Innovations in Sewing Mechanisms
- **Lecture 44:** Case Studies on Efficient Use of Sewing Elements

Weeks 12-16: Unit V – Sewing Defects, Maintenance, and Future Scenario

Week 12

- **Lecture 45:** Types of Sewing Defects in Garments
- **Lecture 46:** Causes of Sewing Defects and Their Remedies
- **Lecture 47:** Importance of Quality Control in Minimizing Sewing Defects
- **Lecture 48:** Practical Activity: Identifying and Rectifying Sewing Defects

Week 13

- **Lecture 49:** Preventive Maintenance of Sewing Machines
- **Lecture 50:** Corrective Maintenance of Sewing Machines
- **Lecture 51:** Comparison of Preventive vs. Corrective Maintenance
- **Lecture 52:** Practical Insights: Maintenance Scheduling

Week 14

- **Lecture 53:** Impact of Industry 4.0 on the Garment Industry
- **Lecture 54:** Role of Automation in Modern Sewing Machines
- **Lecture 55:** Integration of Smart Technologies in Garment Production
- **Lecture 56:** Case Studies on Industry 4.0 Implementation

Week 15

- **Lecture 57:** Recap and Discussion on Sewing Defects and Maintenance
- **Lecture 58:** Group Activity: Designing a Maintenance Plan for Sewing Machines
- **Lecture 59:** Practice Quiz on Unit V Concepts
- **Lecture 60:** Final Review of All Units

Week 16

- **Lecture 61:** Comprehensive Recap of the Entire Syllabus
- **Lecture 62:** Final Practice Test and Exam Preparation
- **Lecture 63:** Doubt Clearing Session
- **Lecture 64:** Feedback and Best Practices Discussion