

**DEPARTMENT OF HOME SCIENCE**  
**SEMESTER – V**

**B.A (Prog.) with Apparel Design and Construction (ADC) as  
Major  
Category-II**

**DISCIPLINE SPECIFIC CORE COURSE – DSC-9-ADC:  
APPAREL QUALITY MANAGEMENT**

**CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE**

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Apparel Quality Management	4	3	1	0	Class XII	NIL

**Learning Objectives:**

- To introduce the learners to the concept of Quality and Quality management in the apparel industry.
- To provide an understanding of quality control practices in apparel manufacturing in the pre-production, production and post – production stages.

**Learning Outcomes:**

After completing this course, the learner will be able to:

- Describe the dimensions of quality and components of quality management.
- Identify and differentiate the various quality standards applicable to the apparel industry.
- Describe the process of inspection and testing of the raw material at the pre-production stage of apparel manufacturing.
- Identify and explain the various pattern and marker defects, spreading defects, cutting defects, sewing and seam defects, pressing and finishing defects
- Correctly measure ready garments such as shirt, trousers, t-shirt, skirt
- Describe the common garment tests for checking its functionality and durability
- Evaluate the ready garment for its overall appearance, workmanship and against the specific requirements of the buyer/ client

**SYLLABUS OF DSC-9**

**THEORY**  
**(Credits 3; Hours 45)**

**UNIT I: Introduction to Quality and Quality Management**

**5 Hours**

This unit provides an understanding of the concepts relating to quality and quality management in the apparel industry. It also aims to apprise the learners of the various quality standards and specifications applicable to the garment industry.

- Quality and Quality Management – Definition and importance, Dimensions of Quality, Components of Quality management – Quality Planning, Quality Assurance, Quality Control
- Quality Standards and Specifications – Importance and types, National and International Standards

#### **UNIT II: Quality Control in Apparel Manufacturing: Pre-production Stage                    10 Hours**

This unit provides basic understanding of the quality control practices in apparel manufacturing in the pre-production stages.

- Fabric Inspection and Testing – Inspection machines/Equipment, Grading of fabric - 4 point and 10 point system, Fabric Testing – Need and Importance, Physical Tests, Color fastness tests
- Accessories Inspection – Interlining, Sewing thread, Zipper, Buttons

#### **UNIT III: Quality Control in Apparel Manufacturing: Production Stage                    15 Hours**

This unit provides basic understanding of the quality control practices in apparel manufacturing in the production stages.

- Pattern and marker defects, Spreading defects, Cutting defects, sewing and seam defects, Pressing and finishing defects
- Key Inline checkpoints for standard Garment Types

#### **UNIT IV: Quality Control in Apparel Manufacturing: Post-production Stage                    15 Hours**

This unit provides basic understanding of the quality control practices in apparel manufacturing in the post-production stages.

- Garment Measuring - Shirt, Trouser, T-Shirt, and Skirt
- Garment Testing for functionality, durability, safety
- Evaluation on the basis of overall appearance, workmanship, specific requirements of the buyer/ client
- Sampling Plans, AQL

### **TUTORIALS (Credits 1; Hours 15)**

Tutorial classes will involve:

1. Q&A sessions/ Group discussions/ Problem Solving exercises with the Students
2. Presentation of project/ research activity by students
3. Any other scholastic work related to application of conceptual understanding of the subject.
4. Evaluation and feedback by the teacher

**ESSENTIAL READINGS:**

- B. Purushothama, (2021), *Handbook of Managing Apparel Production and Quality*, Woodhead Publishing India Pvt Ltd
- Pradip V. Mehta, (2012), *Quality Management Handbook For The Apparel Industry*, New Age International Private Limited
- Sara J. Kadolph, (2007), *Quality Assurance for Textiles and Apparel*, Fairchild Books

**SUGGESTED READINGS:**

- Janace E. Bubonia, (2014), *Apparel Quality: A Guide to Evaluating Sewn Products*, Fairchild Books
- Mehta & Bharadwaj, (1998), *Managing Quality in Apparel Industry*, New Age Publisher, Delhi
- J.E. Booth, (1996), *Principles of Textile Testing*, CBS Publishers & Distributors Pvt. Ltd.

**Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.**

**DISCIPLINE SPECIFIC CORE COURSE – DSC-10-ADC:  
GARMENT PRODUCTION**

**CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE**

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Garment Production	4	3	1	0	Class XII	NIL

**Learning Objectives:**

- To provide an overview of the functions and processes of various departments of a Garment production unit.
- To create an understanding of the garment production systems and the role of time and motion studies in productivity.

**Learning Outcomes:**

After completion of the course, the students will be able to:

- Describe the Steps and strategies involved in the sourcing of fabrics and trims for garment production.
- Explain the role of Marker making, Marker Modes, Marker efficiency in garment production.
- Explain the processes involved in spreading, layout and cutting
- Identify and describe the function of general and specialised sewing machines, types of machine beds and related seams and stitches
- Explain the processes used in finishing and packing department.

- Compare and evaluate the alternative systems of production.
- Explain the importance of time and motion studies to improve productivity in garment production.

## **SYLLABUS OF DSC-10**

### **THEORY (Credits 3; Hours 45)**

#### **UNIT – 1: Sourcing of fabrics and trims**

**10 Hours**

This unit aims at providing a basic understanding of the steps involved in sourcing of raw materials required for garment production.

- Role and Functions of sourcing department
- Steps and strategies of sourcing – Commercial and technical specification of the required fabrics and trims, types of sources, finalisation of vendors and order placement

#### **UNIT 2: Spreading, Marker making and Cutting Hours**

**10**

This unit provides an understanding of the various equipment and processes used in marker making, spreading, layout and cutting room.

- Marker Making – Marker making and fabric consumption, Marker Modes, Marker efficiency
- Spreading and Layout – Spreading methods, Spreading Machines, Splicing, Fabric (Symmetrical and asymmetrical), Types of Lay
- Cutting Room – Cutting room workflow, Cut order planning, Cutting equipment, Fabric Reconciliation

#### **UNIT – 3: Sewing, Finishing and Packing department**

**15 Hours**

This unit provides an understanding of the various equipment and processes used in sewing, finishing and packing department.

- Sewing Room – Functions of sewing department, General and specialised sewing machines, Seams and stitches
- Finishing Department - Functions of finishing department, finishing equipment, types of pressing, washing and dry cleaning, Stain and dry removal, Types of folds, Folding equipment and accessories
- Packing department – Packing and packing material, types of packing, packing list

#### **UNIT 4 – Production Systems and Productivity**

**10 Hours**

This unit introduces the concept of Production systems and time and motion studies in garment production.

- Production systems: Make through system, Section or process system, Whole Garment Production System, Assembly Line System, Bundle system and PBS, Straight line or synchro, Unit production system, Modular Production System
- Role of time and motion study in the productivity of garment production.

## **TUTORIALS** **(Credits 1; Hours 15)**

Tutorial classes will involve:

1. Q&A sessions/ Group discussions/ Problem Solving exercises with the Students
2. Presentation of project/ research activity by students
3. Any other scholastic work related to application of conceptual understanding of the subject.
4. Evaluation and feedback by the teacher

### **ESSENTIAL READINGS:**

- N. Gokarneshan, (2019), *Garment Manufacturing Technology*, Abhishek Publications
- Gerry Cooklin, Steven George Hayes, John McLoughlin, (2006), *Introduction to Clothing Manufacture*, Wiley-Blackwell
- Shukla Atul, Tyagi Dharmendra, (2023), *Productivity Improvement in Garment Manufacturing Process*, LAP Lambert Academic Publishing
- T Karthik, (2016), *Apparel Manufacturing Technology*, Taylor and Francis

### **SUGGESTED READINGS:**

- Eiri Staff, (2007), *Hand Book of Garments Manufacturing Technology*, Educa Books
- Jaeil Lee, Camille Steen, (2019), *Technical Sourcebook For Apparel Designers*, Bloomsbury
- Jung Ha-Brookshire, (2017), *Global Sourcing in the Textile and Apparel Industry*, Bloomsbury Publishing Plc
- Sarkar Prasanta, (2015), *Garment Manufacturing: Processes, Practices and Technology*, Online Clothing Study

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