

## **Diploma in Global Apparel Management & Technology**

### **What is special about this Course?**

This is the only apparel-specific diploma that encompasses the fundamentals as well as the most modern concepts and techniques in the management of Garment Factories. It begins with an in-depth understanding of all functions in the making of apparel and progresses to teach the latest developments in Production Management, Industrial Engineering, Merchandising Management, Lean Manufacturing, and Supply Chain functions. It is an absolutely useful course of study for young people who have joined the industry in recent times as well as for those seeking employment in the industry.

### **Guaranteed Internship Training for Non-working students**

Internship training for school leavers / non-working students (below 24 years of age) will be arranged by the institute to facilitate immediate employment.

On successful completion of the course, students are awarded with a Certificate which is highly recognized in the Garment Industry for employment.

### **Course Content**

#### **1. Introduction to Apparel Manufacturing**

- History of large-scale Garment Manufacturing
- Evolution of the Garment Industry in Sri Lanka
- Importance of the Garment Industry for the Sri Lankan economy in the past 4 decades
- Global Recognition of Sri Lanka Garment Industry

#### **2. Functions of a Garment Factory / Overview of a Garment Factory**

- Factory Layout | Roles and Tasks | Key Positions

#### **3. Introduction to Management**

- Functions of Management
- Levels of Management
- Skills of Management
- Motivation and Leadership Theories

#### **4. Employee Relation**

- Importance of ER to Apparel sector
- Employee absenteeism, turnover and retention in the apparel industry
- Employee discipline, grievances and workplace ethics

#### **5. Compliance, Health & Safety**

- General and Labor Law compliance in apparel industry
- Health & safety aspects in apparel industry

#### **6. Fabric & Yarn**

- Fibers and fiber properties
- Manufacture of yarns and fabrics  
Yarn numbering
- Different Types of Fabrics  
(Woven fabrics and Knitted fabrics)
- Fabric Inspection Methods & Systems  
Fabric defects

#### **7. Marketing and Merchandising Management**

- Buying House Co-ordination | Sourcing
- Pre-costing and Capacity Planning
- Order Planning and Progressing
- Order follow-up (purchases), Practices
- Import / Export Procedures
- KPIs & SOP, related to Merchandising

#### **8. Supply Chain Management**

- Basic Supply Chain Functions
- Logistics, Warehousing, and Transportation, in the Garment Industry
- Inventory Management, Supplier Management, and Demand Forecasting in the Garment industry
- Overview of the Global Apparel Value Chain

#### **9. Quality Assurance and Management Systems**

- What is Quality?
- Measurements and Measuring Procedures
- How to Measure Different Types of Garments
- Quality Specifications and Standards
- Process Quality Control from spreading to Packing

- Rules for Quality / Quality discipline
- Systems of Quality Assurance
- Problems of Quality in Practice  
Defects Identification
- 7 Quality Tools
- 5S and Visual Management
- KPIs & SOPs, related to Quality

#### 10. Stores Management

- Raw material in-house process
- Stock Control & Stores Procedures
- Raw material Quality approval process
- Location management (Storing)
- Raw material allocation process
- Raw material right off process
- Finished goods storage
- Metal detection process in the finished goods department
- Final AQL process  
Finished goods loading/ storing
- SOP, KPIs related to the Store function

#### 11. Cutting Room Management

- Cut - order planning
- Marker making and duplicating methods
- Computerized marker planning (CAD & CAM)
- Optimum fabric utilization through marker making and fabric spreading
- Spreading methods (Manual spreading and automated spreading)
- Different types of cutting machines (New fabric cutting technology applicable to fabric cutting)
- Numbering and Bundling
- Material Utilization & Waste Reduction in cutting
- Cutting Room Quality Assurance Practices
- KPIs & SOP related to Cutting

#### 12. Product Development & Sampling

- Designing and New Product Development
- Proto Sample and Fit Sample Stages
- Size Set Sample Stage | Salesmen Samples
- Pre- Production Sample Stage
- KPIs & SOP related to Sampling

#### 13. Pattern Making & Grading

- The basic principles of Pattern Production
- Construction of basic block draft on a shirt
- Development of production pattern sets

#### 14. Industrial Engineering

- Overview of Industrial Engineering
- Method Study/ Time Study
- GSD and SMV Calculations
- Basic IE Calculations
- Operation cycle time improvement techniques
- Yamazumi and Line Balancing
- Activity Sampling | Ergonomics
- Simultaneous Engineering
- Value Engineering functions
- KPIs & SOP, Related to I. E.

#### 15. Managing the Sewing Floor

- Introduction to machines in a Garment Factory
- Production Process
- Threads, Needles and Accessories
- Sewing Machine parts and their Functions
- Use of Attachments (guides, gauges, feet, and folders)
- Different Types of Seams/ Stitch Classes
- Different kinds of components and their construction techniques (collar, cuff, sleeve, and welt pocket)
- Garment Breakdown (Analysis) of a Shirt and Trouser
- Supervisory Skills
- KPIs related to Sewing Floor Operations

#### 16. Production Management Techniques

- New style introduction and pre-production practices
- Layout planning
- Floor and flow layouts, Line / Band layouts/ Dancing module concept / Component Assembly layouts, Modular Layouts, Process Layouts
- Production Planning Functions, Making High-Quality Garments, Large variety / Small Quantity Orders, Large Quantity Orders
- Sub Contract Management
- Operation and Process Automation
- Process Improvements

#### 17. Finishing

- Thread trimming
- Removing stains
- Ironing garments
- Folding and tagging
- Packing the garments
- Internal shipment audits

#### 18. Embellishments

- Screen printing process
- Different types of embellishment techniques
- Embellishments standards

## **19. Lean Manufacturing and Six Sigma**

- Overview of Lean Manufacturing
- Toyota Production System (TPS)
- Lean and Lead time reduction in the Garment Industry
- Lean and Profit Maximization in the Garment Industry
- Basic Lean Tools application to Garment Factory
- Process Mapping and Value Stream Mapping
- Kaizen and Process Improvement
- Systematic Problem-solving Techniques
- Quick changeover (QCO)
- Kanban, STW and Yamazumi
- Six Sigma Applications to Garment Manufacturing

## **20. Enterprise Resource Planning in Apparel Manufacturing**

- Benefits of ERP in Apparel Manufacturing
- Key ERP features for Apparel Manufacturing

## **21. Technology trends in apparel industry**

- Smart Fabrics and Wearable Tech
- 3D Printing and On-Demand Production
- AI, Data Analytics, and Automation
- Innovation in Manufacturing

## **22. Garment Industry-Related Project and the Logbook**