ADVANCED CERTIFICATE IN INDUSTRIAL ENGINEERING

With the increased competition and rising cost of production, apparel manufacturers are constantly looking for leaner production methods in order to reduce costs. This requires skilled personnel with the know-how to implement productivity programmes in Industrial Engineering, and use Lean Tool effectively. This certificate course equip you with necessary skills and knowledge in Industrial engineering. Course covers time study, standard minute costing, lean tools , production planning, floor layout, motion study as well as wage computation to control the quantity and quality of goods produced.

COURSE STRUCTURE

Advanced Certificate in Industrial Engineering, will be conducted in the form of lectures, discussions, demonstrations, case studies, practical exercises, and hands-on activities.

5 MODULES:

COMPULSARY

1. Lean Thinking
2. Lean Value Stream Mapping
3. Work Study 1
4. Work study 2

ELECTIVE- CHOOSE ANY 1

1. Standard Minute Costing
2. Quality Assurance in the Textile and Fashion Industry

ENTRY REQUIREMENT

- Currently working in the apparel industry or aspire to work in the apparel industry
- Possess university, diploma or high school certificate
- Ability to read, write and comprehend English proficiently
- Basic computing skills and knowledge of Microsoft office

COURSE FEE

For more details on type of Place and Train programme packages and courses fee, please contact us at (855) 23 883 435

COURSE DURATION

Course Type	Full-Time
Total Training and Assessment Hours	151 hours
Total Number of Months	2 months

*Maximum number of months factoring in holidays and scheduling conflicts. This course is also available on part time basis.

GRADUATION REQUIREMENTS

Student must fulfil the following requirements:

- 75% attendance rate of total training hours per module
- Assessed and be competent for every module

CERTIFICATE ISSUANCE

Upon successful completion of the course, student will be awarded the CGTI Certification which is nationally endorsed and recognised by industry partners.

CAREER OPPORTUNITIES

- Factory and Production Manager
- Industrial Engineers
- Work Study Officer
- Production Planner
- Work Improvement Officer
- Manufacturing Departments-In-Charge
- Merchandiser
- Quality Assurance Auditor/Inspector
- Compliance Assistant Auditor

MODULES SYNOPSIS

1. Lean Thinking

The lean journey is similar to a marathon without a finish line. It's "change the mind" rather than "change the line". With today's rising costs and competitive market, this course will introduce you to the world of lean and how it can help to change the way you think and do things. This course provides an introduction to lean and gives you the foundation to develop future projects implementing lean in your workplace. When concepts are implemented as strategies, participants can be assured of higher productivity at work, reduction in the cost of the operations and an increase in profit margins. There will be a simulation of a production line to identify and eliminate wastes streamlining processes to improve productivity.

2. Lean Value Stream Mapping

This course requires participants to have a basic understanding of lean manufacturing concepts. You will learn to assess the current state of the apparel manufacturing operational process from door to door. This methodology provides an accurate snapshot of all the value and non-value added activities in the production process, enabling you to design its future state. You can then easily focus improvements through process razing where a series of Kaizen events can be conducted to eliminate wastes, improve quality and increase productivity.

3. Work Study 1

With competition getting stiffer, there is a need to look at garment manufacturing as a science and not an art. This is where a great need of Garment Engineering and Work Study emerges. This course will help the designers, sample makers and garment technologists develop designs, technical specifications and manufacturing instructions that take production efficiency into consideration. Basic industrial engineering is the pre-requisite for any productivity improvement project. You cannot improve what you cannot measure.

4. Work study 2

This course is a continuation of Work Study 1. You have learnt how to record and study, and now you will learn to analyse and improve the methods and time required in the apparel production processes from cutting, sewing to packing. This course includes hands on activities to conduct capacity assessment, identify unit drivers, apply simultaneous engineering approach for lead-time and cost reduction and conduct value add analysis and feasibility studies. You will learn how to measure and analyse your production efficiency, and what you need to do in production in order to optimize output and increase profit potential.

5. Standard Minute Costing

Apparel manufacturing mainly consists of cutting, sewing, assembly of sewn parts in sewing lines, finishing and packing. Line balancing withinin each process is one of the the keys to achieving optimum production performance.

Computing standard minutes using common industry software is critical in this process. The aim of this course is to provide occupational knowledge, skills and techniques to compute standard allowed minutes (SAM) or standard of allowed hours (SAH) for apparel sewing and balance work among teams or amongst workers in lines to achieve higher efficiency. SAM or SAH or SMV is a universal tool used to compute factory efficiency & costing.

6. Quality Assurance in the Textile and Fashion Industry

This module covers the major aspects of Quality in the textiles & apparel industry. Students will learn the Principles of quality management, to understand and interpret the various types of quality audit reports and how quality policies can impact the operational performance of the organization.The areas of coverage include: statistical sampling, defects classification, samples evaluation and report writing. Raw Materials, product testing and safety, color evaluation will also be introduced. Students will also have the opportunity to be engage in discussions on common quality issues and measurement deviations faced by the industry.