

Module Synopses

Modular Certificate in Engineering Drafting & Design (EDD)

Module 1: Computer-Aided Drafting

This module provides the knowledge of interpreting and preparing engineering drawing of mechanical parts based on ISO Standard recommendations. Participants will be able to use Computer-Aided Drafting & Design (CADD) software to create parametric solid models of mechanical parts and generate the corresponding basic detailed drawings.

Module 2: GD&T Applications

This module is designed to introduce to students the language of Geometric Dimensioning and Tolerancing (GD&T). Students will study the GD&T symbols and its modifiers, interpret the meaning and learn how to apply them in drawings in relation to function and relationship. They will also appreciate the benefits GD&T brings, its strength and advantages. The course will also cover basic inspection methods of verifying GD&T using functional gauges, open setup inspection and special inspection machines.

Module 3: Parts Design Engineering

This module aims to examine the interactions between design and manufacturing from the designer's point of view. Common manufacturing processes will be introduced and design guidelines will be developed for parts made by the process. The successful student will develop a basic understanding of the impact his or her design decisions will have on those who attempt to make the product.

Students will apply design principles in the design of plastic and metal piece part using CAD software for analysis and communication of the design parts.

Enhanced SME QIANG

Module 1: Introduction to Productivity Improvements and Business Model Innovation

This module equips senior management with the knowledge and know-how to effectively deploy project teams, manage change and promote executive sponsorship. The training will also highlight key areas that are essential for achieving the breakthrough improvement in their business process performances.

Business Model innovation, or BMI, is defined as an innovative way to capture, create, develop and deliver value to the customer and market. As rising global competition continues coupled with uncertainties in the highly disruptive world, companies need to relook at their business model to bring their business to the next level.

Module 2: WSQ Implement Lean Six Sigma

This module provides the knowledge and skills which connect to your business operations for maximum benefits. In essence, companies will take more positively to skills and implementation outcomes.

Module 3: WSQ Plan and Implement Productivity Framework

Productivity is a continuous journey and has to be inculcated in every company's culture in order for companies to sustain and grow in a constantly competitive and disruptive marketplace. This module helps the company to sustain its productivity drive by guiding the team of designated Productivity Champions and trained Productivity Managers to set up a productivity framework.

Module 4: Productivity Improvement Project

The classroom training provided will weave into project implementation in a blended approach over an 8-week period.

The training mechanics involve segmenting the 8-week project implementation period into 4 x 2-week project phases. The start of each phase is a 1-day intensive classroom training to impart relevant skills for that phase, followed immediately by project work for the remaining phase.