

Apply Basic DMAIC Problem Solving Techniques (Blended)

SFw

ELE-PIN-4003-1.1

Code: ABDPST

Duration: 16 Hours

Synopsis:

This module is developed to enable learners to acquire knowledge and skills in understanding of an effective problem solving in how to describe a problem (define), a collection of data (measure), analyse the root cause, implement solution to the root cause and establish a control system to sustain the solution. The process involves using statistical analysis application and basic statistic and data analysis to make effective problem solving and effective decision making.

Course Objective:

On completion of this module, learners will be able to work with a team of people to systematically using the DMAIC problem solving technique to make a decision.

Course Outline:

The knowledge and skills covered in this module include:

Skills:

- Define the business case, goals and scope to assure clarity in purpose, support and mission of the project
- Establish key performance metrics and gather the essential data
- Identify the possible root cause of performance problems in the product or process and compare against the baseline process capability
- Analyse all data, process maps and visual data to determine and summarize the root causes of performance problems
- Formulate technical solutions that address the root causes of business and process problems and to assess the cost-benefit
- Follow up to make sure all solutions are sustainable over time with appropriate control plans
- Document reports

Knowledge:

- Type of stakeholders and deliverables involved in the program
- Various statistical tools and approaches in data collection and analysis
- Various existing business process flows
- Documentation control and processes

For Whom:

Suitable for Engineers, Professionals, Managers and Executives (PMEs).

Entry Requirements:

Participants are assumed to:

- Have a basic knowledge of the Singapore Workplace Safety and Health requirements;
- Be able to listen, read and write English at a proficiency level equivalent to the Employability Skills System (ESS) level 6;
- Be able to manipulate numbers at a proficiency level equivalent to Employability Skills System (ESS) level 6.

Training Medium:

This module is conducted in English.

Training Methodology:

This module is delivered through e-learning, lectures, group discussions and case studies.

Essential Requirement:

Participants are required to bring their personal laptop for the work assignment.

Assessment Methodology:

The assessment is conducted through oral/written assessment, work assignment and presentation.

Certification:

An individual who completes a module will be awarded a Statement of Attainment (SOA).