

GENERAL MOTORS

Work Measurement Tools

Course No. LMS # 53160

Duration 3 days

Pre-Requisites Industrial Engineering assignment
GMS Overview
Course participation approved by General Motors

Objectives Upon successful completion of this course, participants will be able to:

- Understand the tools and process knowledge needed to be able to support current production or operation development for new/major program execution for operation write ups for Assembly and Powertrain
 - Apply standard work practices to job operation write ups
 - Develop and validate Job Element Sheets & Standard Operation Sheets
 - Utilize STDS, Line Balancing, Applicable Metrics, and Waste Elimination for documenting operations
 - Optimize efficiency and effectiveness for all operations
-

GENERAL MOTORS

Work Measurement Tools Overview

This course is intended for new and current Industrial Engineers needing the knowledge of Work Measurement Tools to develop, modify, update, validate and improve Assembly and Powertrain job operations. Participants will complete several exercises and activities throughout the course that represent actual job operations.

Work Measurement Tools Lecture & Exercises – 3 Day

Module	Content	Delivery Method	Time (Hours)
1 – STAR(Standard Tracking and Reporting) Guide	<ul style="list-style-type: none">• Overview of the guidelines referenced in the STAR guide• Working knowledge of the systems and processes referenced in the STAR Guide• Understand the application, tracking, and reporting of labor standards	Lecture, Exercises	3
2 – STDS(Standard Time Data System)	<ul style="list-style-type: none">• Understand how to develop labor standards• Understand how to use the predetermined times and the software tool STDS for the purpose of developing and documenting standards• Understand how to account for simultaneous actions in STDS	Lecture, Exercises	8
3 – SOS/JES (Standard Operating Sheet/Job Element Sheet)	<ul style="list-style-type: none">• Understand how standard work optimizes performance by reducing variation and waste• Understand how standard work improves control of operations and measures performance against documented standards• Working knowledge of the SOS/JES documents	Lecture, Exercises	3

GENERAL MOTORS

4 – Operation Setup/Validation	<ul style="list-style-type: none"> • Understand how to identify the materials needed to prepare for an operations setup or validation • Understand how to identify the tools required to complete the operation setup or validation process • Understand the process for setting up operations or validating existing operations 	Lecture, Exercises	6
5 – Re-Engineering Waste Elimination & Line Balancing	<ul style="list-style-type: none"> • Understand how to identify and eliminate waste • Understand the importance of line balancing 	Lecture, Exercises	4

Summary of Exercises

Listed below is a summary of the participant exercises and activities for the course. Unique equipment and software for completing a particular exercise is shown in the right column that is in addition to the baseline training equipment required for conducting the entire course.

Module	Lab / Section Name (sections noted in bold)	Unique Equipment & Software required
1 – STAR (Standard Tracking and Reporting) Guide	Exercise 1.1 STAR Guide Scavenger Hunt	STAR Guide
	Exercise 1.2 Class exercise of documenting the Weatherstrip operation	Weatherstrip operation video Operation write up form STDS
2 – STDS (Standard Time Data System)	Exercise 2.1 Group exercise of documenting the Door Handle operation	Operation write up form STDS
3 – SOS/JES (Standard Operating Sheet/Job Element Sheet)	Exercise 3.1 Twisted Rings Exercise	Twisted Rings

GENERAL MOTORS

Module	Lab / Section Name (sections noted in bold)	Unique Equipment & Software required
4 – Operation Setup/Validation	Exercise 4.1 Examples reviewed of “good” and “bad” job set ups	Materials provided by instructor
5 – Re- Engineering Waste Elimination & Line Balancing	Exercise 5.1 Airplane Exercise	Materials provided by instructor