

Time and Motion Study Workshop

Duration: 5 Days

Module 1: Introduction to Time and Motion Study

- History and evolution of time and motion study
 - Contributions of **Frederick Taylor** and **Frank & Lillian Gilbreth**
 - Importance in modern operations and productivity improvement
 - Applications in manufacturing, services, and digital workplaces
 - Relationship with Lean, Six Sigma, and process improvement
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Module 2: Fundamentals of Work Measurement

- Concepts of productivity and efficiency
 - Elements of work measurement
 - Types of work measurement techniques
 - Time study vs motion study
 - Selecting processes for analysis
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Module 3: Process Analysis and Work Breakdown

- Identifying tasks and process mapping
 - Work element classification
 - Creating operation charts and flow process charts
 - Value-added vs non-value-added activities
 - Bottleneck identification
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Module 4: Motion Study Techniques

- Principles of motion economy
- Therbligs and motion analysis
- Two-handed process charts
- Micro-motion study techniques
- Ergonomics and human factors in motion study

Module 5: Time Study Methods

- Stopwatch time study
- Predetermined motion time systems (PMTS)
- Work sampling techniques
- Performance rating and allowances
- Calculating standard time

Module 6: Tools and Digital Techniques for Time & Motion Study

- Using spreadsheets for time analysis
- Digital data collection tools
- Video analysis for motion study
- Workflow analytics and productivity tools
- Introduction to AI-assisted productivity analysis

Module 7: Data Analysis and Process Improvement

- Interpreting collected time data
- Identifying inefficiencies and delays
- Root cause analysis techniques
- Designing improved work methods
- Implementing productivity improvements

Module 8: Practical Workshop and Case Study Implementation

- Conducting a real-time time and motion study
- Team-based observation exercises
- Data collection and documentation
- Creating improvement recommendations
- Presenting findings and improvement plans