



## Operations Black Belt

### Duration:

- 4 Weeks Training

### Who Should Attend:

- Dedicated process improvement staff who are seen as future business leaders

### Key Topics:

- DMAIC Six Sigma Process Improvement Roadmap
- Chartering a Project
- Measuring Existing Process Capability
- Identifying Sources of Variation
- Process Optimization Methods
- Sustaining the Gains

### Benefits:

- Deliver projects with clear financial benefits
- Resolve long standing process issues
- Spread Process Improvement Methodology™
- Establish a value-focused approach to work and problem solving

## Six Sigma Best Practices Applied to Manufacturing Operations

Manufacturing operations make up the majority of costs of any business and it is here that the Six Sigma journey typically begins. Hidden (and not-so-hidden) cost proliferate through operations in the form of scrap, rework, waste, underutilized capacity, purchase of unneeded equipment, warranty returns, inspection & test and delivery performance issues to name a few. These costs can amount to as much as 10-20% of revenue.

Implementing SBTI's Breakthrough Improvement Methodology can result in a dramatic reduction of these hidden costs. This proven approach applies the DMAIC roadmap and tools to obtain substantial bottom line savings for your organization.

### The Right People

Prior to any project start, SBTI works closely with your Executive, Human Resource and Finance groups as well as operations Champions to ensure the correct level of support for the project teams. Your best operations resources are then selected as Black Belts, a role focused on process improvement.

### The Right Projects

SBTI Deployment Directors lead Champions through a structured methodology to identify key projects worth at least \$250k each to the organization. Projects need to be scoped and defined clearly to ensure Black Belt success in a 4-6 month timeframe.

### The Right Roadmap & Tools

Experienced SBTI Master Black Belt instructors train the Black Belts in the Process Improvement Tools and DMAIC Roadmap. This proven approach reflects the best practices of more than 50 corporate deployments & 350 Black Belt waves since 1997. In combination with SBTI's expert project support and coaching, this approach is responsible for ensuring the targeted \$250k project return.

### The Right Results

SBTI has brought real financial results through Six Sigma methodology to global leaders in every industry. Clients typically receive 10X to 30X return on investment (ROI) from their Six Sigma deployment. Managing or leading 3-5 projects a year, companies can expect well supported Black Belts to achieve more than one million dollars in financial benefits every year.

#### Course work includes:

- Six Sigma Methodology
- Process Mapping
- C&E Prioritization
- Basic Statistics and Graphs
- Measurement Systems Analysis
- Capability Analysis
- Statistical Process Control
- Team Organization & Development

#### Week 1

**PROJECT:** Identify improvement opportunities while identifying and verifying baseline data.

**RESULTS:** Projects identified. Charters established. Project timelines and roles clarified.

#### Course work includes:

- Failure Modes Effects Analysis
- Inferential Statistics
- Multi-Vari Studies
- Planning Experiments
- Team Facilitation Skills
- Tools Simulation
- Basic Minitab
- Project Management

#### Week 2

**PROJECT:** Primary defect data is identified. Potential causes of defects are screened for effect and value.

**RESULTS:** Critical to quality factors are identified and measured.

#### Course work includes:

- Advanced Measurement Systems
- Full and Fractional Experimental Designs
- Regression Analysis
- Multi-Vari Analysis
- Value & Survey Analysis
- Sample Size Calculation
- Dealing with Resistance

#### Week 3

**PROJECT:** Statistical analysis verifies process parameters that negatively impact current performance.

**RESULTS:** Focus of Improve phase identified.

#### Course work includes:

- Process Optimization Methods
- Improvement Hierarchy
- Control Plans and Methods
- Residuals Analysis
- Blocking and Improvement Techniques
- Cost / Benefit Analysis

#### Week 4

**PROJECT:** Establish and implement improvements.

**RESULTS:** Monitor and control systems focused on continuous improvement.