

**COURSE OVERVIEW TM0547**  
**Process Improvement Fundamentals**  
**(E-Learning Module)**

**Course Title**

Process Improvement Fundamentals  
 (E-Learning Module)

**Course Reference**

TM0547

**Course Format & Compatibility**

SCORM 1.2. Compatible with IE11, MS-Edge, Google Chrome, Windows, Linux, Unix, Android, IOS, iPadOS, macOS, iPhone, iPad & HarmonyOS (Huawei)

**Course Duration**

30 online contact hours  
 (3.0 CEUs/30 PDHs)



**Course Description**



This E-Learning is designed to provide [participant with a detailed and up-to-date overview of process improvement fundamentals. It covers the guide to business process modelling and business process improvement steps; the common business process improvement solutions; the DMAIC and DMADV; solving business problems using business process improvement; the business process management, mapping and modeling; the steps for process management; the benefits from process modeling using flowchart using the appropriate symbols; and the process charts, high-level process map, low-level process map, cross functional or swim lanes map and activity diagrams.



Further, the course will also discuss the use cases and its elements; writing effective use-case descriptions; the guidelines for creating use-case descriptions; the Six Sigma cost or efficiency rationale, dysfunctional or broken processes, workflow and the principles for successful process management; the customer-producer-supplier (CPS) model, workflow and business process analytics; the process analysis techniques, process analysis communication and business process communication; the four steps of process; the processes design, documenting the process and evaluating process performance; and the tools for evaluating performance.



During this interactive course, participants will learn the histogram, bar chart, pareto chart, scatter-diagram and cause-and-effect diagram; the process change assessment, benchmarking and the common mistakes in process management; the BPM tools, aligning requirements with tools capabilities and building evaluation matrix; the validation criteria, evaluation methods, technical and non-technical evaluation, evaluation of the assembly and inconsistent component integration; the evaluation matrix, design tools and product survey; developing a process enterprise, creating a BPM center of excellence (COE), maintaining business process inventory and optimizing collections of process; the process inventory, integrate BPM projects and create new process by conducting research; the evolutionary development, component-based development, reuse approach, component guidelines, additional considerations, disposal and component development; the measuring processes, KPIs and project objectives, measurement criteria and the aspects of measurement; and the common usage scenarios and the benefits of selecting effective BPM.

### **Course Objectives**

After completing the course, the employee will:-

- Apply and gain a fundamental knowledge on process improvement
- Define process improvement tools and why organizations benefit from it
- Identify the most common process improvement tools and relate concepts to the overall business mission and objectives
- Understand how the concepts of process improvement tools are used to evaluate the capability of a process or organization
- Define the roles and responsibilities of team members involved in process improvement projects
- Apply basic statistics and analytical techniques to understand and analyze data
- Discuss the guide to business process modelling and business process improvement steps
- Identify the common business process improvement solutions
- Differentiate DMAIC and DMADV as well as solve business problems using business process improvement
- Carryout business process management, mapping and modeling
- Employ the steps for process management covering process identification, interviewing and map generation, analyzing the data, presentation, process defined and drilling down
- Recognize the benefits from process modeling using flowchart using the appropriate symbols
- Describe process charts, high-level process map, low-level process map, cross functional or swim lanes map and activity diagrams
- Identify use cases and its elements, write effective use-case descriptions and apply guidelines for creating use-case descriptions

- Discuss the Six Sigma cost or efficiency rationale, dysfunctional or broken processes, workflow and the principles for successful process management
- Illustrate the customer-producer-supplier (CPS) model, workflow and business process analytics
- Analyze processes, apply process analysis techniques and plan process analysis communication and business process communication
- List the four steps of process covering a pre-briefing, demo, debriefing and feedback and discussions
- Design processes, document the process and evaluate process performance
- Redesign the process, implement the changes and identify the tools for evaluating performance
- Describe histogram, bar chart, pareto chart, scatter-diagram and cause-and-effect diagram
- Conduct process change assessment, carryout benchmarking and identify the common mistakes in process management
- Identify BPM tools, align requirements with tools capabilities and build evaluation matrix
- Recognize validation criteria, evaluation methods, technical and non-technical evaluation, evaluation of the assembly and inconsistent component integration
- Build evaluation matrix, design tools and apply product survey
- Develop a process enterprise, create a BPM center of excellence (COE), maintain business process inventory and optimize collections of processes
- Identify the process inventory, integrate BPM projects and create new process by conducting research
- Discuss evolutionary development, component-based development, reuse approach, component guidelines, additional considerations, disposal and component development
- Apply measuring processes, review KPIs and project objectives, develop/clarify measurement criteria and discuss the aspects of measurement
- Validate and analyze processes, build evaluation criteria, identify the common usage scenarios and explain the benefits of selecting effective BPM

### **Who Should Attend**


This course provides a basic overview of process improvement for system administrators, systems analysts, business analysts, associate project managers, project managers, project coordinators, project analysts, project leaders, senior project managers, team leaders, product managers and program managers.

### Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course.

### Certificate Accreditations


Certificates are accredited by the following international accreditation organizations: -

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USA International Association for Continuing Education and Training (IACET)

Haward Technology is an Authorized Training Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 1-2013 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 1-2013 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

### Course Fee

As per proposal

### **Training Methodology**

This Trainee-centered course includes the following training methodologies:-

- Talking presentation Slides (ppt with audio)
- Simulation & Animation
- Exercises
- Videos
- Case Studies
- Gamification (learning through games)
- Quizzes, Pre-test & Post-test

Every section/module of the course ends up with a Quiz which must be passed by the trainee in order to move to the next section/module. A Post-test at the end of the course must be passed in order to get the online accredited certificate.

### **Course Contents**

- Introduction & Guide to Business Process Modelling
- What is Business Process Improvement?
- Business Process Improvement Steps
- Common Business Process Improvement Solutions
- Why 33% of Business Process Improvement Initiatives Fail?
- What does Business Process Improvement Look Like for You?
- Business Process Improvement Methodologies
- Difference Between DMAIC and DMADV
- How to Solve Your Business Problems Using Business Process Improvement
- Contents
- Process Vs. Procedure
- BPM
- Definition
- What is Business Process Modelling?
- What is Process Mapping?
- Why & When is Process Mapping Used?
- How to Produce a Process Map
- Draw & Label the Swim Lanes
- Add in the Process Flows

- Swap Lanes and Enter Decision Points
- Complete the Process Map
- BPM and Logic
- Course Recap
- Steps for Process Management
- Drilling Down
- BPM – Overview the Steps
- Benefits from Process Modeling
- Other Benefits
- Difficulties
- Continuous Improvement & PDCA
- Course Recap
- Process Modelling
- Flowchart - Picturing the Process
- What Does it Do?
- How Do I Do It?
- Draw the Flowchart Using the Appropriate Symbols
- Flowcharts
- Flowchart of the Sales Process of a Consulting Company
- Flowcharting Handoffs Between Departments
- Service Blueprints
- Process Charts
- Overall Process Charts
- High-Level Process Map
- Low-Level Process Map
- Cross Functional or Swim Lanes Map
- Value Stream Map - Activity Map
- Activity Diagrams
- BPM with Activity Diagrams
- Activity Diagram Syntax
- Activity Diagram Example
- Creating Activity Diagrams
- Use Cases

- What Are Use-Case Descriptions?
- How are Use-Cases Created?
- Elements of a Use-Case Description
- Writing Effective Use-Case Descriptions
- Guidelines for Creating Use-Case Descriptions
- Syntax for Use-Case Diagram
- The Use-Case Diagram for Appointment System
- Use-Case Diagram with Specialized Actor
- Extend and Include Relationships
- Course Recap
- Process Modeling
- Flowchart - Picturing the Process
- What Does it Do?
- How Do I Do It?
- Determine the Frame or Boundaries of the Process
- Determine the Steps in the Process
- Sequence the Steps
- Arrange the Steps in the Order they are Carried
- Don't Draw in the Arrows Yet
- Test the Flowchart for Completeness
- Finalize the Flowchart
- Draw the Flowchart Using the Appropriate Symbols
- Flowcharts
- Flowchart of the Sales Process of a Consulting Company
- Flowcharting Handoffs Between Departments
- Service Blueprints
- Process Charts
- Overall Process Charts
- High-Level Process Map
- Low-Level Process Map
- Cross Functional or Swim Lanes Map
- Value Stream Map - Activity Map
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- Activity Diagram Example
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- Use Cases
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- Writing Effective Use-Case Descriptions
- Guidelines for Creating Use-Case Descriptions
- Syntax for Use-Case Diagram
- The Use-Case Diagram for Appointment System
- Extend and Include Relationships
- Examples of Several Popular Techniques, Modeling Issues, Examples of Workflow/Analytic Tools Used Today
- Managing, Controlling and Improving
- Principles for Successful Process Management
- Phase I: Initialization
- The Customer-Producer-Supplier (CPS) Model
- Phase II: Definition
- Phase III Control (I)
- The Six Sigma Cost or Efficiency Rationale
- When should a Process be Reengineered? (I)
- Dysfunctional or Broken Processes
- Symptoms and Diseases of Broken Processes
- Workflow – Definition
- Workflow Basics
- Workflow Perspectives
- Business Process Analytics
- Process Perspective: Protos (Extended Petri Nets)
- Process Perspective: Staffware
- Process Perspective: Cosa (Petri Nets)
- Process Perspective: Baan DEM
- Process Perspective: Event Driven Process Chains (ARIS/SAP)
- (Oracle) BPEL



- Petri Nets as a Basis
- Example of a Process Model: A Petri Net Modeling Order Processing
- Course Recap
- Section 5:
- Examples of Several Popular Techniques, Modeling Issues, Examples of Workflow/Analytic Tools Used Today
- Managing, Controlling and Improving
- Principles for Successful Process Management
- Phase I: Initialization
- Process Ownership
- Analyzing Process Boundaries and Interfaces
- Internal Interfaces
- The Customer-Producer-Supplier (CPS) Model
- Phase II: Definition
- Phase III: Control (I)
- The Six Sigma Cost or Efficiency Rationale
- Cycle Time and Yield
- When should a Process be Reengineered? (I)
- Change
- Dysfunctional or Broken Processes
- Symptoms and Diseases of Broken Processes
- Workflow – Definition
- Workflow Basics
- Business Process Analytics
- Process Perspective: Protos (Extended Petri Nets)
- Process Perspective: Staffware
- Process Perspective: COSA (Petri Nets)
- Process Perspective: Baan DEM
- Process Perspective: Event Driven Process Chains (ARIS/SAP)
- (Oracle) BPEL
- Petri Nets as a Basis
- Example of a Process Model: A Petri Net Modeling Order Processing
- Course Recap
- Analyzing Processes

- Process Analysis Techniques
- Suggestion Systems
- Design Teams
- Metrics
- Flowcharts
- Walkthroughs
- Plan Process Analysis Communication
- Stakeholders
- Output
- Plan Requirements Management Process
- Purpose
- Description
- What is a Walkthrough?
- A Walkthrough is Not
- A Four Step Process
- Prior to Walkthroughs ...
- Class Exercise
- Process Analysis
- Designing Processes
- Process Analysis
- Process Reengineering
- Process Improvement
- Goals of Process Analysis
- Identifying Opportunities
- Define the Process Scope
- Document the Process
- Evaluate Process Performance
- Redesigning the Process
- Tools for Evaluating Performance
- Checklist
- Histogram
- Bar Chart
- Pareto Chart



- Histogram
- Bar Chart for Customer Complaints
- Pareto Chart (Example of Why Claims Were Returned)
- More Tools for Evaluating Performance
- Scatter-Diagram
- Cause-and-Effect Diagram
- Graphs
- Cause and Effect Diagram (The Fish Bone Diagram)
- Airlines Example Analysing Flight Delays Using A Cause-And-Effect Diagram
- Conducting an Assessment Of Process Change
- Simulation
- Process Simulation
- Benchmarking
- Common Mistakes in Process Management
- Course Recap
- BPM Tools
- Defining Requirements
- Aligning Requirements with Tools Capabilities
- Building the Evaluation Matrix
- Validation Criteria
- Evaluation Methods
- Technical and Non-Technical Evaluation
- Evaluation of the Assembly
- Inconsistent Component Integration
- User's Experience
- Building the Evaluation Matrix
- Design Tools
- Product Survey – Modeling Tools
- Sources for Tools
- Product Survey – BPM Engines (SM)
- Product Survey – BPM Suites
- Course Recap
- How to Develop a Process Enterprise



- Create a BPM Center of Excellence (COE)
- What does a BPM COE do?
- Maintain Business Process Inventory
- Optimizing Collections of Processes
- Redundant Processes and Process Standardization
- Cross-Process Integration
- Why Develop a Process Inventory?
- Identifying the Process Inventory
- Value Chain and Level 1-2-3 Processes
- Example Process Inventory (Partial)
- Integrate BPM Projects
- Integrating Enterprise-Wide Improvements
- Prioritize BPM Projects
- Alignment with Strategy
- Importance to Customer
- Level of Standardization
- Impact of Change
- Speed of Results
- Cost/Benefit
- Risk
- Roles in the BPM COE: BPM Manager
- Authority and Location in the Business
- Responsibilities
- Required Capabilities/Skills
- Steps in Establishing a BPM COE
- Course Recap
- Create New Processes
- Create New Process – Conducting Research
- Create New Process – Benchmarking
- Benchmarking
- Class Exercise
- Common Mistakes in Process Management
- Creation of a New Process

- The Sequential Model
- Evolutionary Development
- The Iterative Model
- The Incremental Model
- The Prototyping Model
- Component-Based Development
- Reuse Approach
- Reuse
- Component Guidelines
- Additional Considerations
- Disposal
- Disposal: Dissatisfaction
- Disposal: Obsolescence
- Disposal: Considerations
- Component Development
- Measuring Processes
- Identify Appropriate Measures
- Identify Appropriate Measurement Levels
- Review KPIs and Project Objectives
- Develop/Clarify Measurement Criteria
- Aspects of Measurement
- Validating and Analyzing Processes
- Build Evaluation Criteria
- Common Usage Scenarios
- Common Usage Scenarios for Rules
- Implementation
- Benefits of Selecting Effective BPM
- Measuring Processes
- Identify Appropriate Measures
- Identify Appropriate Measurement Levels
- Review KPIa and Project Objectives
- Develop/Clarify Measurement Criteria
- Timeliness

- Validity
- Completeness
- Inclusiveness
- Cost Effectiveness
- Comparability
- Balanced
- Perspective
- Aspects of Measurement
- Validating and Analyzing Processes
- Build Evaluation Criteria
- Common Usage Scenarios
- Common Usage Scenarios for Rules
- Business Policies
- Constraints
- Computations
- Reasoning Capabilities
- Implementation
- Benefits of Selecting Effective BPM