



## MassMEP Project Management Consortium (40 Hours)

The MassMEP Project Management training consortium is designed to apply the project management best practices recognized by PMI® to successfully manage projects. The class is structured to take you from selecting a project through closing it. You will see how the PMI knowledge areas integrate to provide thorough planning which is key to a successful project today. Executing and Controlling will provide techniques to manage your teams and stakeholder relationships. Closing will address closing both projects and contracts.

This 5-part workshop series is designed to develop and train Massachusetts manufacturers with Project Management tools and skills needed to compete on the local and global stage. Workshops will include;

- Selection of your project
- Developing a Project Charter in the Initiation Stage
- Planning the project via a “To Do” list known as the Work Breakdown Structure
- Develop Project Schedules so to identify duration estimates, identify the Critical Path, and develop the project schedule
- Develop cost estimates and budgets, establish cost baselines to determine needed resources
- Analyze and Plan Risk...identify Risks and Risk Triggers, perform Risk Analysis, develop Risk Register for Risk Response Plan
- Planning Project Quality, Staffing, Communications and Procurement
- “Work the Plan” as we enter Execution Phase, usually longest phase of Project, utilize and develop the project team
- Monitoring & Controlling the Project – investigate the different ways to manage changes to the performance baselines, Project Scope Changes, Cost Baseline Changes and addressing Risk
- Closure – as you get ready for Closing the Project, review “Lessons Learned” and prepare to hand-off to the client or customer

The Project Management Consortium will consist of multiple companies interested in learning how to initiate, improve or validate their project management personnel and processes. This is an excellent opportunity to streamline documentation and develop efficiencies by using and reusing effective tools and templates; also, by diligently following the Lessons Learned approach you will have an excellent opportunity to reduce errors, risks and improve “PM” performance.

The cost of these workshops will be covered under a Workforce Training Grant being submitted by the MassMEP on behalf of registered Consortium Partners. In order to be considered for participation in this Consortium, Companies will be required to submit a letter of commitment and agree to provide basic background information on their company for the completion of the consortium grant application.



## Workshop #1 (8 Hours):

**A) INTRODUCTION & SELECTION** In this lesson you will be introduced to the nature of projects, review the corporate “Problems, Opportunities and Mandates” that lead you to the project proposal, review and selection process that allow you to move on to the Initiation stage. We will focus on the practical and reliable six (6) stages of Project Management: Selection, Initiation, Planning, Execution, Monitoring and Controlling, and Closure.

Further, we will discuss and examine Leadership. Leadership development and demonstration is an essential attribute for Project Managers. We will review the role of a Project Manager and how best to hone those skills.

- Introductions and Expectations
- Review the norms, language, frameworks, tools & technologies (ongoing)
- Discuss factors on why Project Management activity is increasing (Globalization etc.)
- What makes a project successful
- Discussion and thoughts about Project Management business case utilization

**B) INITIATING a PROJECT** In this training you will be introduced to the nature of projects, review the Project Life Cycle, and discuss the Process Groups (Selecting, Initiating, Planning, Executing, Monitoring and Controlling and Closing). You will learn about creating a Project Charter, determine stakeholders, and selection criteria used to select a project manager. Topics in this training include:

- Getting to know you
- General framework / definitions that will be used throughout the class
- Triple constraint of Cost, Scope, and Time (and Quality)
- Reviewing a Project Charter
- Stakeholders’ roles and management
- Project manager selection criteria
- First group meeting of team
- Premortem

**C) PLANNING YOUR WORK** In this training you will learn how to develop an Initial Project Plan, Create a Scope Statement, and develop a Work Breakdown Structure (WBS), one of the most important tools of Planning. Topics in this training include:

- Project Planning Methodology
- Progressive Elaboration vs. Scope Creep
- Developing an Initial Project Plan
- Creating a Scope Statement
- Developing a Work Breakdown Structure (WBS)



## Workshop #2 (8 Hours):

**A) DEVELOPING PROJECT SCHEDULES** In this training you will create Activity Lists and Project Network Diagrams. You will develop duration estimates, identify the critical path, and develop a Project Schedule.

Topics in this training include:

- Creating an Activity List
- Creating Project Network Diagrams
- Understanding the Backward and Forward Path Method in CPM
- Developing duration estimates – PERT, expert judgment, etc.
- Understanding Mandatory, Discretionary and External Dependencies
- Identifying the critical path
- Identifying the Path Float, Float, and Free Float

**B) DEVELOPING COST ESTIMATES, and BUDGETS** Training will be around estimating costs, establishing cost baselines and determining resource requirements.

Topics in this training include:

- Estimating costs- Analogous, Bottom-up methods
- Establishing cost baselines
- Estimating resource requirements

**C) ANALYZING RISKS and PLANNING RISK RESPONSES** In this training you will construct a Risk Management Plan, learn how to identify Project Risks and Triggers, Perform Qualitative and Quantitative Risk Analysis, create and use decision trees, and develop a Risk Response Plan. Topics in this training include:

- Creating a Risk Management Plan
- Types of risk –Insurable, Business, Pure
- Risk Tolerance
- Identifying Project Risks and Triggers,
- Performing Qualitative Risk Analysis
- Probability Scales and Impact Risk Rating Matrix
- Project Risk Ranking
- Performing Quantitative Risk Analysis
- Decision Tree Analysis
- Developing a Risk Response Plan
- Avoidance, Transference, Mitigation and Acceptance techniques
- Contingency and Fallback Plans
- Creating a Risk Response Plan



### Workshop #3 (8 Hours):

**A) PLANNING PROJECT QUALITY, STAFFING, COMMUNICATIONS, and PROCUREMENT** In this training you will develop a Quality Management Plan and be introduced to the various quality tools, such as checklists, flowcharts, etc. We will explore organizational structures, look at staffing acquisition methods, and create a Communications Management Plan. In discussing procurement, we will review a Statement of Work (SOW) and investigate Make- or-Buy Analysis, Contracts, and Contract Planning. Topics in this training includes:

- Developing a Quality Management Plan
- Introducing the quality tools - flowcharts, checklists, Ishikawa, etc.
- Japanese influence
- Understanding Grade vs. Quality
- Reporting relationships, roles and responsibilities
- Staffing acquisition methods
- MacGregor's Theory X and Y
- Listening Skills
- Barriers to good communication
- Types of communication –Written/Verbal Formal/Informal
- Developing a Communications Management Plan
- Responsibility Assignment Matrix (RAM)
- Procurement planning-contract types and documents
- Preparing a Statement of Work (SOW)

**B) WORKING THE PLAN** In this training we will look at the Execution of the Project Plan, and work on developing the Project Team. Tips on working with virtual teams will be explored. Topics in this training include:

- Executing the Project Plan
- General management skills
- Kickoff meeting
- Work authorization system
- Project management information systems
- Implementing Quality Assurance
- Quality audits
- Quality Improvement, TQM
- Developing the Project Team
- Conflict management
- Distributing project information
- Types of authority – Position and Person Based
- Management styles
- Contract Negotiation
- Contract Administration



#### **Workshop #4 (8 Hours):**

**A) CONTROLLING THE PROJECT** In this training we will investigate the many ways of controlling the project such as, Managing Changes to Performance Baselines, Project Scope Changes, Cost Baseline Changes, and Monitoring and Controlling Project Risk. We will continue to look at the procurement process and the topics of Solicitation, Contract Negotiation and Contract Administration. The topic of earned value will be rigorously addressed.

Topics in this lesson include:

- Managing changes to performance baselines
- Controlling Scope, Cost, Schedule, quality, and risk changes
- Change Control System and Configuration Management
- Earned value methodology – history and theory
- Cost and Schedule variances, estimate at completion
- Performance measurement - Gantt charts, S-curves
- Pareto diagrams
- Monitoring and Controlling Project Risk
- Reporting project performance

**B) CLOSING THE PROJECT** In this training you will learn how to compare Administrative and Contract Closure and understand the difference. We will also look at Procurement Audits as a formal evaluation of the supplier's performance and the procurement process itself.

Topics in this training include:

- Contract Closure
- Procurement Audits - formal evaluation of the supplier's performance
- Administrative Closure
- Lessons Learned

**C) Professional Responsibility** In this training we will review the professional responsibility and ethics of a project manager.

Topics in this training include:

- Professional Responsibility
- Ethics
- Cultural Awareness

#### **Workshop #5 (8 Hours):**

**A) Recap** – In this training we will review what we have learned from Introduction & Selection to Closure.

**B) Real Project Examples** – here, each class member will share how they have applied what they have learned. The class members will demonstrate the use of a tool or concept they have used, or will soon use in a real life application.

**C) Lessons Learned** – Class will identify what lessons they learned from this class. What valuable lesson or experience did the student take away from this class that will help that student explain to their company why this class was a valuable training session.