

Project Management

Purpose and Background

Projects have traditionally been the basic unit of work for many engineering organizations – consulting, design, and construction firms. Other types of engineering organizations - government agencies, utilities, manufacturing - are using projects more and more as a way to tackle problems, make improvements, or bring new products and services to market more quickly and efficiently.

Projects generally involve working in teams with colleagues from other disciplines, departments, and even other companies. Most teams find that the technical portion of the projects is easy. It is the coordination that is difficult: getting people to communicate with one another; making sure that individuals are on schedule with their own tasks to avoid delaying teammates who depend on their output; getting decisions quickly from clients and management, identifying and dealing with changes and keeping stakeholders informed.

The key to a successful project is in the planning: being clear on the objectives, deciding how to work together as a team, thinking through how to approach the scope, setting up a schedule and budget, understanding clearly what will make the deliverable acceptable to the client of the project. The easiest way to plan a project is to have those who will execute the work help with the planning. This has the added benefit that the team is ready to hit the ground running during execution.

This two-day seminar involves you in a project leadership model that you can take back to your workplace and apply immediately. The course addresses all phases of a project: initiating, planning, executing, controlling, and closing.

Seminar Instructor

Ann M. Tomalavage, P.E., PMP, LEED AP, M.ASCE, has over 30 years of professional experience, and has been a practicing project manager since 1984. Ann holds B.S. and M.S. degrees in Civil Engineering from the University of Delaware. Ann is a registered professional engineer, and is a certified Project Management Professional (PMP). Ann's specialty is helping technical personnel understand, embrace, and apply project management principles. Ann also assists firms with strategizing, planning, and costing proposals, and facilitating project kick-off meetings and LEED goal-setting meetings. She also helps organizations revamp their workflow.

Ann's background is industrial and municipal wastewater treatment and hazardous waste management. Some of Ann's key projects include wastewater treatment design for textile wastewater at DuPont facilities nationwide; wastewater characterization and conceptual treatment design at a textile mill in Alexandria, Egypt; wastewater treatment and hazardous waste incinerator design, permitting, operator training, and startup for a polyvinylidene fluoride manufacturing facility in New Jersey; NPDES permitting for power generation, steelmaking, petroleum refining, and other industries; hazardous waste characterization investigations; and corporate wastewater compliance engineering for Pennwalt.

Ms. Tomalavage was also responsible for training and developing project managers at Roy F. Weston, Inc, and she created a program for mentoring new project managers, to assist them in making the transition from strictly technical responsibilities to business and communications responsibilities as well. Ann assisted new PMs in identifying skill gaps and helping to bridge the gaps through coaching and training. She also led a project to develop a PM-friendly project information interface with the project accounting system.

- For group training, contact John Wyrick (JWyrick@asce.org) or Stephanie Tomlinson (STomlinson@asce.org)

Summary Outline

DAY ONE

Project Management Context

- Definitions
- Project management thought process

Initiating

- Starting up and defining a project
- High-level information you need before you can plan a project

Planning

- Why we must plan
- Planning project scope - scope statement
- Work breakdown structure (WBS)
 - Deliverables, tasks
 - WBS as the basis for scope, schedule, budget, responsibility, change control
- Understanding customer acceptance criteria for each deliverable as the way to build quality into the project
- Project schedule
 - Deciding durations for each task
 - Deciding the order for tasks: predecessors, successors - project network diagram (PND)

DAY TWO

Cost Estimating

- Three cost estimating techniques
- Estimating the costs associated with each task: labor (Man-hours), expenses

Preparing for Tracking and Change Control

- Cash flow plan for the project
- Agreeing up-front on how to: measure progress, make progress payments, manage changes

Project Risk Management Cost Estimating Microtunneling Techniques

- Identifying
- Quantifying
- Prioritizing
- Risk response development and control

Executing

- Project status
- Scope verification

Closing

- Administrative closeout
- Lessons learned

Seminar Benefits

- Increase buy-in from individuals who execute the project work
- Understand the importance of planning to ensure project success
- Experience a participative planning process to increase buy-in from the individuals who execute the project work
- Appreciate the value of agreeing upon change management procedures before the project begins
- Understand the five parts of any project
- Understand practical project planning, management, and leadership skills that you can apply immediately
- Understand basic planning tools, including: scope statement; work breakdown structure; project network diagram and schedule; project cash flow plan; risk identification, quantification, and response definition and customer acceptance criteria
- Confidently use earned value to track projects

Who Should Attend?

Anyone who manages projects of any size will find this course helpful, regardless of project management experience. New or soon-to-be project managers will learn the skills to make team-based project planning a habit.

This course is also eye-opening for experienced project managers who are used to either planning projects in isolation – or to not planning at all.

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