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COURSE OUTLINE

"The Project Planning and Program Control Processes"

New and innovative principles of project planning and program control, taught using practical application problems. This course is available in either a conventional in-house classroom setting or in convenient CD-ROM format. This extensive course begins at an introductory level.

PART I

1. INTRODUCTION

Description: Workshop Objectives; managing processes; where is the value of planning; where is the Return-On-Investment (ROI); the project management legacy and why it is so.

2. THE SKILLS OF A PROJECT MANAGER

Description: Defining the 2 essential skills of a project manager: interpersonal (leadership, team building, etc.) and mechanical (planning, estimating, resource acquisition, etc.).

3. TO PLAN OR NOT TO PLAN

Description: Reviewing the important aspects of why planning is essential in the successful management of projects, which ties in with problem identification and management. The characteristics of problems: best to identify as early as possible, cannot hide problems, solve as low as possible, analyze all options; proactive versus reactive management; the problem resolution methodology and its relationship to PM.

4. WHAT IS A PROJECT

Description: Definition and characteristics of a project and how it differs from other forms of endeavor; the three dimensions of project objectives; the "Key Drivers" of a project; the "4 Project Management Steps"; top-down defined versus bottom-up planning philosophy; finding the right combination of factors; the typical parameters used to measure a project are not the right parameters to manage it.

5. DEFINING PROJECT PURPOSE

Description: Establishing the project technical, cost, and schedule objectives in the beginning; Project Management Mechanisms; the project Charter; Sources of objectives - customers vs. stakeholders; needs assessment; measuring / validating accomplishment; constraints, exclusions, and assumptions; validating deliverables to objectives; milestones (Objective + Schedule).

6. DEFINING PROJECT WORKSCOPE

Description: Definition of Workscope; how to identify and define detail work effort; principles of 'Work Decomposition'; work definition methodology - Work Breakdown Structure (WBS) - the methodology, its principles and disciplines; organizational structures (OBS) and the importance of integrating the work and organizational structures.

7. DETAIL PLANNING

Description: Bottom-up planning; how to properly define each project activity - outputs / products, duration, inter-dependency / relationships, responsibility; how to properly define and then manage project relationships; how to properly define and the use of project events / milestones.

8. INTERACTION ANALYSIS

Description: Methodologies of interaction analysis - timelining versus modeling; what is timelining: how does it work, when should it be used, what are its limitations; what is project modeling: how does it work, when should it be used, what are its limitations; model elements; activities, relationships, and events (milestones); project models: series of paths, right-to-left and left-to-right planning, relativistic tool, appropriate level of detail to base model.

9. TIME ANALYSIS OR CPM

Description: Defining project calendars; CPM - its purpose, capabilities and myths; forward pass process: basics, starts, the proper use of date constraints, multiple predecessor relationships, "stretch" versus "no-stretch"; backward pass process: basics, finishes, the proper use of date constraints, multiple successor relationships, "stretch" versus "no-stretch"; total float (TF): definition, positive versus negative, relationship to CPM, who owns TF, characteristics of TF, how to use TF effectively and practically, improper modeling techniques and software anomalies; events and milestones: basics, apparent date disparity, 'collector nodes', how to properly use and model events.

PART II

10. RESOURCE PLANNING

Description: What are resources; the Total Resource Management Problem; the resource acquisition cycle and its impact; the project level management problem and the Resource Modeling process: resource pools and their effective availability, defining resource requirements for each activity, establishing activity schedule, aggregate resource requirements, availability versus cumulative requirement analysis, problem identification and quantification; problem resolution strategies; the role of the computer in resource planning, along with its myths and misconceptions; the budget excuse and why it is invalid; an integrated resource system; other pertinent factors.

11. ESTABLISH PROJECT BASELINES

Description: Definition; the three baselines: technical, schedule, and cost; the 'Schedule Reconciliation' process; effective schedule and budget options (pros and cons of each); the 'Principals of Path Dynamics'; understanding the consequences of any action; modeling tools; determine the baselines; establish the baselines; manage the baselines (Change management).

12. PERFORMANCE MEASUREMENTS AND MANAGEMENT

Description: Workscope Change Management; technical, cost, and schedule performance measurement: actual and projected dates; activity status and event/milestone status; how to model status; impact analysis through schedule rippling, resource impacts, & effects to total float; potential versus real impacts; path dynamics and management strategies / actions; the impediments of large databases; the practical level of project modeling; the tiers of management and the distribution of management responsibilities; the need for supportive working level detail planning and management, as well as executive support and involvement.

13. REPORTS

Description: Management information - the right product for each specific purpose; graphic versus tabular reporting; software utilities (filtering and sorting); coding to exploit data capabilities; description and purpose of various products; how to use Project Model Diagrams for problem analysis; reporting schedule and resource problems.

14. RISK AND OPPORTUNITY MANAGEMENT

Description: What is 'Risk Management' - Process of risk/opportunity identification, analysis, prioritization, and resolution; qualitative and quantitative analysis; basics of CPM 'What-if' analysis, PERT process and the value of 3-time estimates, Monte Carlo Simulations; risk resolution and opportunity instigation strategies.

15. SUMMARY/ CONCLUSIONS

Description: Project modeling fallacies; the planning 'Cop-outs'; the proper expectation of Project Management software - what it does and what it does NOT do; review of the planning and scheduling terminology, essential processes and practical methodology.