



Course Description

An introduction to programme management for space missions and presents the tools and techniques for project definition, work breakdown, estimating, resource planning, critical path development, scheduling, project monitoring and control, and scope management.

Course Topics

Executive Overview:

- Defining Project and Program Management
- Benefits and Obstacles of Project Management
- Basic Concepts of Project Management
- Defining Roles of Leadership in a Project
- Exploring the Definition of Complex Space Systems

Bounding Project Scope:

- Creating the Project Charter
- Project Classification Frameworks

Leading and Managing the Project Team:

- Difference Between Management and Leadership
- Power and the Influencing of Behaviour
- Situational Aspect of Leadership Styles and Follower Readiness Team-Building and Conflict Resolution Techniques
- Successful Motivation Practices
- Effective Leader Communications

Work Breakdown and Organisational Structures:

- Work Breakdown Structure
- Organisational Structures
- Selecting the Organisational Form
- Selecting the Project Manager
- Building the Project Team
- Complex Systems: Organisational Issues

Task Planning:

- Introduction to Estimation
- Time Estimates
- Equipment Driven Activities
- Labor-Driven Activities
- Software Estimates

Project Network Modeling:

- Introduction to Networks
- Creating the Network
- Determining the Critical Path
- Gantt Charts
- Fast-Tracking The Project Schedule

Project Management Software:

- MS Project and Other Software Packages
- Gantt Charts

MS Project Tutorial Resource Levelling and Project Budget:

- Resource Levelling
- Generating a Project Budget
- Management Reserve/Contingency Funds
- Budget Estimation Tips

Project Control:

- Elements of Project Control
- Earned Value Analysis
- Change Control and Configuration
 Management

Project Quality Management:

- Project Metrics
- Calculate Performance Metrics
- Quality Control
- Quality Assurance

Contracting and Sub-contracting:

 The PM's role for supplier and subcontractor management

Risk Management:

- Risk Management Process
- Identifying Risks
- Qualitative and Quantitative Techniques
- Risk Mitigation Evaluating, Directing, and Closing Out a Project Independent Assessments
- Project Closeout
- Lessons Learned

Business Ethics:

• The importance of ethics in the PM profession

Course Materials



Each participant will receive:

- A complete electronic set of course notes with copies of the slides used in the presentation
- An e-copy of the Applied Space Systems Engineering textbook

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