Design Interface & Maintenance Planning Course (DI/MP)

Gain the instruction and practice to apply life cycle management processes to acquired systems, equipment and high-value physical assets. This introductory course provides training designed to provide an in-depth understanding of DI/MP disciplines as they relate to the five phases of Defense Acquisition Management System (DoDI 5000 Model). It is approved by and meets NAVAIR DI/MP certification requirements. As an introductory course, there are no prerequisite requirements to attend.

What You’ll Gain
Upon completion, participants will be able to:
- Describe DI/MP integration within a systems engineering, integrated product team (IPT) environment
- Explain the Logistics Management Information (LMI) System development and delivery process
- Apply critical DI/MP processes throughout the phases of Acquisition and Sustainment

Course Design
Delivered over a one-week period for up to 40 hours, instructional strategies introduce concepts, reinforce learning, engage participants in the learning process and include
- Training Materials (included in cost)
- Lecture, supported by on-screen presentations
- Demonstration
- Large Group Discussion
- Case Study Analysis
- Capstone Practice Exercises

Who Benefits
This course is designed for
- Logisticians & Engineers, from novices to experienced professionals
- Maintenance Planners, Managers and Technicians
- Military, Municipal & Commercial Sectors

Capstone Practice Exercises
These exercises will be delivered in two parts:
- Part 1: Knowledge assessment of content presented in Units 1 through 3.
- Part 2: Knowledge assessment of content presented in Units 4 through 6.

Both exercises will be performed in pre-assigned collaborative groups. The entire group will be scored for each exercise and scores are cumulative. Each group will remain the same for both exercises. Successful completion of both Capstone Exercises is required to pass this course at a minimum of 70 percent accuracy per group.
This course is comprised of eight units, beginning with an overview to provide a clear understanding of the learning expectations for each unit. The first unit introduces participants to the concept of DI/MP integration within a systems engineering IPT environment. The next five units provide instruction on the sequential phases of the DoD 5000 Model, addressing the processes and tools required to perform the tasks associated with each acquisition phase. During the seventh unit, trainees receive a high-level overview of the Logistics Management Information (LMI) System as it relates to their responsibilities as a DI/MP logistician. The last unit will summarize and review course content and provide participants with opportunity to work in their pre-assigned groups to “teach back” one of the units.

Unit One: Introduction to Design Interface Maintenance Planning (DI/MP)
- Introduction to the concept of DI/MP integration within a systems engineering IPT environment
- Responsibilities of the DI/MP logistician
- Five phases of the Defense Acquisition Management System (DoD 5000 Model)
- Supportability Analysis (S Analysis) defined
- The S Analysis process
- Maintenance Plan Development Flow
- Resource requirements/elements of Acquisition Logistics Support (ALS)
- Relationship between S Analysis and design influence
- Life-cycle costing in systems acquisition
- Four S Analysis goals

Unit Two: Materiel Solution Analysis
- Purpose of the Materiel Solution Analysis (MSA) phase
- Five Supportability (S) Analysis task strategies used in MSA
- Elements of the Supportability Analysis Plan (SAP)
- Elements of the Use Study Report
- Comparative Analysis
- Baseline Comparison System Comparative Analysis Process
- Standardization and interoperability
- Functional requirements and analysis process
- Logistics criteria to address in the Interface Control Drawing (ICD) at Milestone A
- Logistics information compiled during Materiel Solution Analysis

Unit Three: Technology Development
- Purpose of the Technology Development phase
- Technology Development Strategy (TDS) considerations
- Considerations for updating the Supportability Analysis Plan (SAP)
- Consideration for updating the Comparative Analysis
- Considerations for updating the Functional Requirements
- Steps for completing a Trade Study
- Trade-Off Analysis methodology
- Information outcomes required when conducting the upper-level Task Analysis
- Logistics activities that must be completed prior to entrance into Milestone B

Unit Four: Engineering & Manufacturing Development (E & MD)
- Purpose of the E & MD phase
- Describe the process for updating the Functional Requirements
- Approach for conducting the Failure Modes, Effects, and Criticality Analysis (FMECA)
- Reliability-Centered Maintenance (RCM)
- Detailed Task Analysis
- Task Analysis Case Study
- Level of Repair Analysis (LORA) Program
- Updating the Supportability Analysis Plan (SAP)
- Supportability Test & Evaluation (T&E) Strategy
- Logistics criteria for consideration during E & MD
- Logistics information compiled during E & MD
- Logistics information/activities that must be completed or updated before Milestone C

Unit Five: Production and Deployment (P&D)
- Purpose of the Production and Deployment phase
- Updating the Supportability Test and Evaluation (T&E) Strategy
- Supply Support Plan
- Packaging, Handling, Storage, and Transportation (PHS&T) Summary Report
- Provisioning requirements process
- Early Fielding Analysis
- Logistics criteria for consideration during P&D
- Logistics information compiled during P&D
- Logistics activities that must be completed or updated before Operations and Support

Unit Six: Operations and Support
- Purpose of the Operations and Support phase
- Proactive system monitoring
- Tasks monitored by the Maintenance Planning Logistics Element Manager (LEM)
- Parameters to establish system performance
- Five instances when Maintenance Plans should be updated
- In-Service Maintenance Planning process flow
- Reliability and maintainability process flows
- Steps for reviewing preventive maintenance tasks
- Three parts of the Maintenance Plan
- Review a sample Maintenance Plan
- Solicited and unsolicited Engineering Change Proposals (ECP)
- The Phase Support Planning tool
- Factors for consideration in logistics support system effectiveness
- Post-Production Support (PPS) planning activities
- Three essential steps for developing a Post-Production Support (PPS) plan
- Physical Configuration Audit (PCA)

Unit Seven: Logistics Management Information (LMI)
- Purpose of Logistics Management Information (LMI)
- The LMI database
- Categories and types of reports required for the Supportability (S) Analysis process
- Support software programs

Unit Eight: Course Review