FEDERAL ACQUISITION INSTITUTE

FPM 316 - Systems Management: Senior Level

MCI Course Number: 6894
Length: 1 day of self-directed work + 2 days in the classroom

Course Description

This course focuses on systems management within the Federal environment. Students will assess how systems development, including requirements, system engineering, test and evaluation, and logistics, fits into the overall total Life Cycle Systems Management (TLCSM) environment. With the use of real-life examples, in-depth discussions, and analyses of current events, students will navigate through federal department/agency decision support systems and learn key strategies to evaluate systems development challenges; lead the transition and assessment of strategic goals into executable project/program requirements; gain a comprehensive understanding of the benefits of a Project Management Office (PMO); and use systems engineering, life cycle logistics, and formal plans for managing systems.

Course Learning Objectives

- Evaluate systems development challenges in the federal system environment
- Lead the transition and assessment of strategic goals into executable project/program requirements
- Evaluate the benefits of a project/program management office
- Evaluate and evolve the development and application of a systems engineering approach to develop IT and non-IT products
- Evaluate when life-cycle logistics approaches are appropriate
- Formulate an approach using integrated master plan (IMP)/integrated master schedule (IMS) processes
- Appraise the importance of making informed decisions across the TLCSM

Intended Audience

This course is intended for program and project management professionals seeking their FAC-P/PM Senior Level certification.

Prerequisites

- Students must satisfy the competency requirements for FAC-PPM Level 2

Prework

Students must complete the following prior to attending class:

- eLearning module on “The Federal Acquisition Environment”
- Pre-assessment of experience and expertise with relevant FAI Performance Outcomes. A personalized report will be generated for students upon completion of the pre-assessment and
- One (1) day of self-directed work targeted at competency gaps
- One (1) agency planning artifact (used on-the-job) to be used as supplemental documentation for the course exercises

Course Schedule

DAY ONE	
MORNING	Lesson 1: Evaluating the Federal Acquisition Environment for Systems Development
	Lesson 2: Decision Support Systems Requirements
LUNCH	
AFTERNOON	Lesson 3: Projects, Programs, and the Project Management Office

DAY TWO	
MORNING	Lesson 4: Systems Engineering for IT and Non-IT Products
	Lesson 5: Acquisition Logistics
LUNCH	
AFTERNOON	Lesson 6: Using the IMP and the IMS
	Lesson 7: Systems Challenges

Learning Methods

Presentation, class discussions, practical activities, and group and individual exercises.

Requirements for Successful Completion

Full (100%) attendance is expected and required. Successful completion of the course depends on full class attendance and active participation in individual and group exercises.

Credits

National Association of State Boards of Accountancy (NASBA)

- Field of Study: Management Advisory Services
- Level: Advanced
- CPEs: 16

Professional Development Units (PDUs)

- Credits: 14

Continuous Learning Points (CLPs)

- Credits: 24

Third-Party Certification Relationship

This course addresses the following FAI performance outcomes and IT specific outcomes:

- Manage the application of Total Life Cycle Systems Management (TLCSM), or similar concept, which requires the program manager to base decisions on system-wide analyses and system performance and affordability, and manage the program risk of those decisions
- Manage the analyses of user requirements to optimize system performance relative to cost and schedule
- Facilitate the application of agency acquisition policies to meet user/mission requirements
- Evaluate the preparation and implementation of an Acquisition Strategy with an on-going risk/opportunity management process
- Identify, interpret and implement agency financial policies and directives that are applicable to the program
- Evaluate analysis of alternative concepts that efficiently meet mission capability gaps
- Originate and manage an estimate of ownership cost ensuring consistency with OMB A-94 and PART analysis
- Manage the integration of business and technology management strategies, accounting for cost, schedule and performance risks, that delivers best value and meets capability requirements
- Plan for the key processes employed in interface management, including the ability to trace system requirements through the software architecture
- Design the charter and functions, select and assign membership, and lead integrated product/process teams and other program oriented working groups
- Synthesize the efforts and output of functionally oriented product/process teams in preparation for and execution of milestone and stakeholder reviews of the program
- Formulate, implement and evolve a rigorous SE management program that tracks engineering and specification requirements back to user/mission requirements
- Evaluate technical management processes and tools used in the SE process, including configuration management, technical performance measures, and technical design reviews which ensure consistency of a product's attributes with its requirements and technical data information
- Evaluate and evolve the process of developing technical solutions which link user requirements to technical performance and lead to the selection of a balanced design solution
- Manage development and application of effective system performance measures that provide early indication the selected design solution will meet user requirements
- Generate and appraise common decision analysis methods and tools
- Assess and evolve products, plans and other documentation related to technical performance measurement, technical assessment, risk/opportunity management and technical data management
- Evaluate common SE management strategies for information technology programs
- Facilitate development of a comprehensive test and evaluation strategy, designed to reduce program risks as the program progresses through the acquisition life-cycle
- Justify and communicate to program stakeholders, efficient and cost effective methods for planning, monitoring, conducting, and evaluating tests of developmental, non-developmental, commercial or modified systems.
- Oversee a comprehensive test and evaluation program, adjusting to changes in program complexity and risk
- Manage and critique a strategy for conducting user or operational testing that determines the operational effectiveness and suitability of a system under realistic operational conditions
- Manage the programmatic and system impact; and risk to program restructuring, as a result of analysis and evaluation of developmental and operational test reports

- Evaluate and implement appropriate, innovative alternative logistics support practices that evolve to optimize life cycle costs, maintain system readiness and reduce logistics footprint
- Critique a product support strategy where interoperability is required and evolve the strategy to achieve a balance in system performance, system readiness and life-cycle cost
- Formulate and defend a performance-based logistics strategy that optimizes total system life cycle costs
- Synthesize logistic analysis results and risk mitigation issues early in the system development process and implement balanced adjustments in the system design to reduce the required support resources and overall life cycle costs
- Organize and track materiel management actions involving the coordination of production, inventory, location, and transportation of program items of materiel (and associated information and financial transactions) to achieve optimum readiness among organizations employing the system
- Facilitate the development of the program acquisition approach, define program scope, and coordinate an Integrated Master Plan
- Integrate quality assurance practices into the modular development cycle
- Incorporate systems engineering practices into a modular development framework
- Incorporate testing and evaluation into modular system development efforts
- Apply modular development Project Management principles to support rapid delivery schedules; integrate IT projects with larger IT Architecture initiatives