

Training Objectives and Competencies for the Project Manager – Entry/Apprentice Level by Process or Course of Action

The information covered in this grouping includes:

- ◆ Management Process
- ◆ Systems Engineering
- ◆ Test and Evaluation (T&E)
- ◆ Life Cycle Logistics (LCL)
- ◆ Contracting
- ◆ Business, Cost Estimating and Financial Management
- ◆ Leadership/Professional

Listed below is each of the processes or course of action and the supporting objectives and core competencies.

Management Process (Entry/Apprentice)

Management Process includes an application of agency acquisition policy in support of assigned missions and functions. This process defines how agency acquisition professionals balance risk and how they handle factors that influence cost, schedule, performance and attention to lessons learned. The use of metrics is introduced which help tailor acquisition policies that ensure quality, affordable, supportable and effective systems/products are delivered.

Management Process specifically consists of knowledge of:

- ◆ Requirements Development Process
- ◆ Concept Selection Process
- ◆ Technology Development Process
- ◆ Core Management Skills and Processes
- ◆ Life Cycle Cost (Total Ownership Cost
- ◆ Risk and Opportunity Management
- ◆ Market Research
- ◆ Communications Management
- ◆ Working Groups and Teams

Management Process Objectives

Some key objectives for the Management Process include:

- ◆ Identify agency-specific processes that are used as the precursor to the acquisition processes.
- ◆ Define the process and assist in the creation of an analysis of the alternative and application of OMB A-94, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*.
- ◆ Describe the key features of a Technology Development Strategy based on completed analysis of alternatives, studies to date, draft plans, and selected material concepts.

- ◆ Generate system requirements consisting of performance parameters objectives and thresholds, affordability, scheduling and technical constraints and environmental issues together with customer needs.
- ◆ Implement a process by which the efforts of all acquisition personnel are integrated through a comprehensive plan.
- ◆ Prepare (under instruction) the contents of a plan for total Life Cycle system management (Integrated Master Plan) that addresses phased:
 - ◆
 - Inputs and outputs
 - Deliverables
 - Internal and external project technical reviews
 - Congressional processes
 - Audits
- ◆ Create (under instruction) an integrated master schedule, utilizing schedule network tools and techniques, work loading methods, and agency project management software.
- ◆ Prepare, under instruction, a project and contract Work Breakdown Schedules (WBSs).
- ◆ Demonstrate how to use cost, schedule and performance measures and metrics that are needed to manage projects.
- ◆ Prepare a business strategy for market research (FAR Parts 10 and 12) to include socio-economic considerations.
- ◆ Explain the need for the Project Manager to participate in pre-award actions required by acquisition planning (FAR Part 7.1).
- ◆ Develop a comprehensive project specification and requirements statement that fully and correctly define the project.
- ◆ Formulate a source selection plan that allows for best value selection from competitive solicitations.
- ◆ Identify the role of an estimate in Total Ownership Cost (TOC)/Life Cycle Cost process.

- ◆ Define the risk/opportunity management process to include planning, assessment (identification and analysis), handling and monitoring.
- ◆ Utilize effective and correct oral and written skills.
- ◆ Demonstrate effective briefing skills.
- ◆ Define the functions of membership in a working group or project-oriented team to include Integrated Product and Process Teams.

Management Process (Entry/Apprentice) Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|---|--|
| <u>Management Process</u> | Knowledge of government-wide and agency-specific acquisition policies that support assigned missions and functions; understanding of how agency acquisition professionals balance risk; understanding of the many factors that influence cost, schedule, and performance; attention to lessons learned; understanding of metrics needed to manage projects that deliver quality, affordable, supportable, and effective systems/products. |
| <u>Requirements Development Process</u> | <ul style="list-style-type: none"> ✓ Knowledge of the agency process that is the precursor to the acquisition process and is aimed at identifying, assessing and prioritizing needed mission oriented capability gaps, and is performed in coordination with potential users. ✓ Ability to participate in, under supervision, a study of different non-system specific, or activity specific, materiel and non-materiel approaches (concepts) to provide a required capability, assessing in an operational context the performance characteristics of alternatives. |

| Process | Competencies and Proficiencies |
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| <p><u>Concept Selection Process (Pre-project)</u></p>  <p>NOTE: Concept Selection is selecting the idea(s) which best satisfy the project design</p> | <ul style="list-style-type: none"> <li>✓ Ability to define the process and participate in, under instruction, an analysis of the alternative, and application of OMB A-94 to reduce the number of and refine the concept(s) to better meet the mission capability gap. <li>✓ Knowledge of the agency process for selection of materiel/non-materiel course of action relative to satisfying the capability gap. <li>✓ Ability to establish performance measures and associated metrics to evaluate a possible solution. <li>✓ Ability to define a process that the agency will use to select a preferred system concept (if the preferred concepts includes a materiel solution) that may be continued into Technology Development. <li>✓ Knowledge of the key features of a Technology Development Strategy that flow from the completed analysis of alternatives, studies to date, draft plans, and selected materiel concepts. |

| Process | Competencies and Proficiencies |
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| <p><u>Technology Development Process (Pre-project)</u></p> | <ul style="list-style-type: none"> ✓ Ability to expand, if applicable, together with the user, “customer needs” into system requirements: <ul style="list-style-type: none"> ▪ Performance parameters objectives and thresholds (the difference being Trade Space) ▪ Affordability constraints ▪ Scheduling constraints ▪ Technical constraints ▪ Environmental issues ▪ Joint, combined, and interagency interoperability ✓ Knowledge of a limited number of key performance parameters that are critical to the development of an effective capability. ✓ Knowledge of a process to derive, if applicable, an acquisition project baseline from the user’s performance and schedule requirements, and best estimates of total project cost consistent with projected funding. ✓ Ability to plan technology developments and demonstrations (in coordination with systems engineering and test and evaluation personnel/organizations) needed for the capability under consideration. ✓ Knowledge of the agency policy on interoperability. ✓ Knowledge of the issues in performing requirements trade-offs. ✓ Knowledge of the role of an Acquisition Strategy ✓ Knowledge of the benefits of project coordination with users, milestone decision authority, industry, and other projects (same, other agencies, and international), etc. ✓ Knowledge of the agency requirement to formally initiate an Acquisition Project or other Project as appropriate, employing OMB A-94 analysis and the OMB Program Assessment Rating Tool (PART). |

| Process | Competencies and Proficiencies |
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| <p><u>Core Management Skills and Processes</u></p> | <ul style="list-style-type: none"> ✓ Knowledge of the process for the development of the project and defining project scope, environmental, safety, and occupational health (ESOH), and security measures. ✓ Ability to participate, under instruction, in the preparation of a plan for Total Life Cycle System Management (Integrated Master Plan) that addresses phased inputs, outputs, deliverables for each phase, and internal and external project technical reviews, Congressional processes, audits, and how various project functions will be performed and managed. ✓ Ability to participate, under instruction, in the preparation of an integrated master schedule, employing schedule network tools and techniques, work loading methods, and using agency project management software to produce a schedule in one or more desired formats. Inputs to this process may include, e.g., <ul style="list-style-type: none"> ▪ Activity duration estimates ▪ Work Breakdown Schedule ▪ Project baseline ▪ Resource calendars ▪ Resource requirements ▪ Activities parameters ▪ Project integrated master plan ✓ Ability to prepare, under instruction, a project and contract WBSs structuring/tailoring each WBS to the project and applying elements of scheduling, risk management, cost estimating, contracting, EVM, etc. ✓ Knowledge of the importance of technical reviews. ✓ Knowledge of the structure of a management philosophy for all project plans and actions, and production in particular that stresses eliminating defects by applying business process re-engineering methods for continuous improvement. |

| Process | Competencies and Proficiencies |
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| | <ul style="list-style-type: none"> ✓ Knowledge of the value of the PM planning for and management of resource needs. ✓ Knowledge of the need for financial planning and execution reviews. |
| <p><u>Life Cycle Cost (Total Ownership Cost) Management (OMB A-94)</u></p>  <p>NOTE: - A life cycle cost analysis calculates the <u>cost</u> of a <u>system</u> or <u>product</u> over its entire life span; Total cost of ownership (TCO) is a financial estimate designed to help consumers and enterprise managers assess direct and indirect costs related to the purchase of any capital investment, such as (but not limited to) computer software or hardware. A TCO assessment ideally offers a final statement reflecting not only the cost of purchase but all aspects in the further use and maintenance of the equipment, device, or system considered.</p> | <ul style="list-style-type: none"> ✓ Recognize the role and nature of an estimate of Total Ownership Cost (TOC) prepared in agency format, and the need to revisit and ensure it is consistent with prior OMB A-94 and PART analysis as appropriate, considering full project scope in applying cost estimating techniques/tools to cases involving management decisions, e.g., contractor versus government logistics support: <ul style="list-style-type: none"> ▪ Recognize estimating techniques/tools for developing rough cost estimates (Engineering Estimates, Parametric, etc.) ▪ Recognize cost estimating techniques/tools to 1.) Estimates of ECP and modification costs, 2.) Estimate of project cost, and 3.) Life Cycle Cost/TOC estimation for the project. ▪ Recognize an associated risk level for all cost estimates. ▪ Recognize impact of various reduced funding profiles. ▪ Recognize costs within each applicable appropriation. ▪ Recognize the need for assumptions, and why they should be valid. ▪ Recognize cost policies and practices. ▪ Participate, under instruction, in the preparation of a business case analysis applying cost benefit trade-offs to the project. ▪ Recognize the need for appropriate indices for then year and constant year estimates ✓ Knowledge of the reasons for application of Department/Agency financial policies and directives that are applicable to the |

| Process | Competencies and Proficiencies |
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| | <p>project, such as developing out-year financial plans, budgets estimated in Departmental/Agency formats, including impacts of Earned Value Management.</p> |
| <p><u>Risk and Opportunity Management</u></p>  <p>NOTE: Risk management is the process of measuring, or assessing risk, and developing strategies to manage identified risk.</p> | <ul style="list-style-type: none"> ✓ Knowledge of the risk/opportunity management process which includes planning, assessment (identification and analysis), handling, and monitoring, all to be integrated and continuously applied throughout the project. ✓ Knowledge of the value of decision analysis in the selection of risk handling options/opportunities and the need to fold those options into a detailed Integrated Master Plan and Integrated Master Schedule (IMP/IMS). <ul style="list-style-type: none"> ▪ Recognizes the need to identify and prioritize risk events to be handled. ▪ Recognizes the need for mitigation strategies based on risk assessments. ▪ Recognizes the need to evaluate mitigation strategy performance. ▪ Has knowledge of application of critical chain management tools and techniques to balance risks with available resources ✓ Knowledge of the value of an organizational structure/method to track and manage risk/opportunities. ✓ Knowledge of a process to use the project WBS to develop a risk management organization for the project including contractor representatives. ✓ Knowledge of how a risk/opportunity management project is to be used with the management of the project |
| <p><u>Market Research (including Socio-economic Considerations)</u></p>  <p>NOTE: Market research is the process of systematic gathering, recording and analyzing of data about</p> | <p>Ability to perform, under instruction, using FAR Part 10 and 12 (if applicable), a business strategy for market research, the application of dual-use technologies to market research, and use of commercial items within market research (using socioeconomic considerations throughout).</p> |

| Process | Competencies and Proficiencies |
|---|---|
| <p>customers, competitors and the market. Market research can help create a business plan, launch a new product or service, fine tune existing products and services, expand into new markets etc.</p> | |
| <p><u>Prepare and Issue Solicitation</u></p> | <p>Ability to develop a comprehensive program specification and statement of work that fully and correctly defines the program, addressing roles and missions of the government and contractor.</p> |
| <p><u>Communications Management</u></p>  <p>NOTE: Communicate needs and expectations for the project; determines how and in what format information will be communicated; determines when and where each communication will be made, and who is responsible for providing each type of communication.</p> | <ul style="list-style-type: none"> ✓ Ability to share & communicate lessons learned. ✓ Ability to use correct and effective oral and written skills. ✓ Knowledge of the importance of the dissemination of information both internally and externally. ✓ Ability to demonstrate effective briefing skills. |
| <p><u>Working Groups and Teams</u></p>  <p>NOTE: Persons who report either directly or indirectly to the project manager and who are responsible for performing project work as a regular part of their assigned duties.</p> | <p>Knowledge of the functions of membership in a working group or project oriented team, including Integrated Product and Process Teams. Demonstrate knowledge of team development functions and the need to be:</p> <ul style="list-style-type: none"> ✓ Open in discussions ✓ Qualified to participate and an empowered team member ✓ Consistent, success-oriented, proactive in participation ✓ Continuous communications (including “up-the-line” communications) ✓ Reasoned in disagreement ✓ Active in offering issues and committed to their early resolution. |

Systems Engineering (Entry/Apprentice)

Systems Engineering includes the recognition of scientific, management, engineering and technical skills used in the performance of system planning, research and development, with an emphasis on performing and managing a technical process.

Systems Engineering Objectives

Some key objectives for Systems Engineering include:

- ◆ Develop a Technical Assessment Plan that measures technical progress and the effectiveness of plans and requirements
- ◆ State the systems life cycle management concepts used for information systems
- ◆ Describe configuration methods and best practices to establish and maintain consistency of a product’s attributes with its requirements and product configuration information
- ◆ Describe the content of a Technical Data Management Plan
- ◆ Define a process for monitoring and selecting a Design Solution that translates outputs of the Requirements Development and Logical Analysis processes
- ◆ Develop a process to monitor/coordinate/participate in the validation procedures which helps to answer the question – “Did you build the right thing?”

Systems Engineering (Entry/Apprentice) Essential Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|-------------------------------------|---|
| <u>Technical Management Process</u> | <ul style="list-style-type: none"> ✓ Knowledge of the nature of the decision analysis methods that will provide the basis for evaluating and selecting alternatives for decision making. Decision Analysis involves selecting the criteria for the decision and the methods to be used in conducting the analysis. ✓ Ability to develop a plan for Technical Assessment that measures technical progress and the effectiveness of plans and requirements. Activities within |

| Process | Competencies and Proficiencies |
|---------------------------------|---|
| | <p>Technical Assessment include those associated with Technical Performance Measurement and the conduct of technical reviews.</p> <ul style="list-style-type: none"> ✓ Knowledge of systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems. ✓ Ability to participate in, under instruction, the execution of a Risk/Opportunity Management plan and methods applicable to a systems engineering context that examines the risks of deviating from the project plan. It will examine all aspects of the project and their relationships. The plan and methods should integrate design (performance) requirements with other life cycle issues such as manufacturing, operations, environment, safety, and occupational health considerations, and support. ✓ Knowledge of Configuration Management methods and best practices to establish and maintain consistency of a product's attributes with its requirements and product configuration information. ✓ Ability to identify the key processes employed in interface management, including the ability to trace system requirements through the software allocation architecture and use of an interface matrix. ✓ Ability to describe the content of a plan for Technical Data Management. |
| <p><u>Technical Process</u></p> | <ul style="list-style-type: none"> ✓ Knowledge of the nature of the requirements development process for working with the user to establish and refine operational needs, attributes, performance parameters, trade-offs, and |

| Process | Competencies and Proficiencies |
|---------|---|
| | <p>constraints that flow from the needed capabilities, and then ensure that all relevant requirements are addressed.</p> <ul style="list-style-type: none"> ✓ Ability to develop a process to monitor/coordinate/participate in the validation procedures that answers the question of "Did you build the right thing?" ✓ Ability to establish a process of obtaining sets of logical solutions to improve knowledge of the defined requirements and the relationships among the requirements. ✓ Ability to define a process for monitoring and selecting Design Solution that translates the outputs of the Requirements Development and Logical Analysis processes into alternative design solutions and selects a final design solution. ✓ Knowledge of the value of a process for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the integration process, including the assembly sequence, may impose constraints on the design solution. ✓ Knowledge of processes for monitoring the integration procedures for incorporating the lower level system elements into a higher level system element in the physical and logical architecture. The plan or strategy for the Integration process, including the assembly sequence, may impose constraints on the design solution. |

Test and Evaluation (T&E) (Entry/Apprentice)

Test and Evaluation (T&E) includes the recognition of efficient and cost effective methods for planning, monitoring, conducting and evaluating tests of prototype, new or modified systems equipment or materials. These methods can include the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to the requirements and to develop metrics that demonstrate system success or failure.

Test and Evaluation Objectives

Some key objectives for Test and Evaluation include:

- ◆ Explain the need for a comprehensive Test and Evaluation (T&E) project including Modeling and Simulation
- ◆ Describe the value of a comprehensive Test and Evaluation Strategy (TES), and how this document can involve into the Test and Evaluation Master Plan (TEMP)
- ◆ Identify the Realistic or Operational Test and Evaluation (OT&E) process utilized in the Agency

Test and Evaluation (T&E) (Entry/Apprentice) Essential Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|---|--|
| <u>Test and Evaluation (T&E)</u> | Knowledge of efficient and cost effective methods for planning, monitoring, conducting, and evaluating tests of prototype, new, or modified systems equipment or materiel, including the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to requirements and to develop metrics that demonstrate system success or failure. |
| <u>Integration of T&E</u> | Ability to determine the need for a comprehensive T&E project including Modeling & Simulation. |
| <u>Test and Evaluation Strategy (TES)</u> | Knowledge of the value of a comprehensive Test & Evaluation Strategy (TES) and how this document can evolve into the Test & Evaluation |

| | |
|--|---------------------------------------|
| | Master Plan TEMP. |
| <u>Realistic or Operational Test and Evaluation (OT&E)</u> | Knowledge of the agency OT&E process. |

Life Cycle Logistics (LCS) (Entry/Apprentice)

Life Cycle Logistics includes the recognition of performance-based logistic efforts that optimize total system life cycle availability, supportability, and reliability/maintainability while minimizing cost, the logistic footprint, and interoperability.

Life Cycle Logistics Objectives

Some key objectives for Life Cycle Logistics include:

- ◆ Oversee the application of Total Life Cycle Systems Management (TLCSM)



NOTE: Total Life Cycle Systems Management is described in the Defense Acquisition Guidebook, Chapter 5.1.1

- ◆ Explain alternative logistics support practices including supply chain functions, best public sector and commercial practices, and technology solutions
- ◆ Determine the need for a module open systems approach (MOSA) where interoperability is a key LCL facilitator
- ◆ State the systems life cycle management concepts used for information systems

Life Cycle Logistics (LCS) (Entry/Apprentice) Essential Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|--|---|
| <u>Life Cycle Logistics (LCS)</u> | Knowledge of performance-based logistic efforts that optimize total system life cycle availability, supportability, and reliability/maintainability while minimizing cost, the logistic footprint, and interoperability. |
| <u>Life Cycle Logistic (LCL) Management, Product Support, and Interoperability</u> | <ul style="list-style-type: none"> ✓ Ability to implement alternative logistics support practices, including supply chain functions, best public sector and commercial practices, and technology solutions. ✓ Ability to determine the need for a modular open systems approach (MOSA) where interoperability is a key LCL facilitator. |

Contracting (Entry/Apprentice)

Contracting includes the supervision, leadership and management processes/procedures involved in the:

- ◆ Acquisition of supplies and services, construction, research and development
- ◆ Acquisition planning, to include performance-based considerations
- ◆ Cost and price analysis
- ◆ Solicitation and selection of sources
- ◆ Preparation, negotiation, and award of contracts
- ◆ All phases of contract administration
- ◆ Termination options and processes for closeout of contracts
- ◆ Legislation, policies, regulations and methods in contracting, and business and industry practices with particular emphasis on:
 - Participation in determination of contract approach
 - Development of performance-based solutions
 - Preparation of requirements and supporting documentation
 - Participating in source selection
 - Management of contracting performance and contract administration

Contracting Objectives

Some key objectives for Contracting include:

- ◆ Identify the need to support contract administrative actions
- ◆ Describe the processes/procedures involved in the acquisition of supplies and services especially in all phases of contract administration and awards of contracts
- ◆ Explain formulating pre-award policies to include FAR Parts 5 Publicizing Contract Actions, 13, Simplified Acquisition Procedures and 14, Sealed Bidding, etc.

- ◆ Develop a comprehensive project specification and statement of work that fully and correctly define the project, addressing roles and missions of the government and contractor
- ◆ Describe the process for formulating and creating a formal source selection plan that allows for best value selection from a competitive solicitation
- ◆ Describe how to support contract administrative actions
- ◆ Define how to establish a negotiated baseline of performance with operational users and the corresponding commercial and/or organic support providers

Contracting (Entry/Apprentice) Essential Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|---|--|
| <u>Contracting</u> | Knowledge of the supervision, leadership and management processes/procedures involving the acquisition of supplies and services, construction, research and development; acquisition planning to include performance-based considerations; cost and price analysis; solicitation and selection of sources; preparation, negotiation, and award of contracts; all phases of contract administration; termination options and processes for closeout of contracts; legislation, policies, regulations, and methods used in contracting, and business and industry practices. |
| <u>Contract Approach</u> | Knowledge of a process by which the efforts of the PM and PCO, and all other personnel responsible for an acquisition, are integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. |
| <u>Prepare Requirements and Support Documentation</u> | Ability to participate in pre-award actions required by FAR Subpart 7.1 Acquisition Planning, and the remainder of FAR Parts 1-12 etc., |

| Process | Competencies and Proficiencies |
|---|---|
| | considering key and complex contract terms and conditions for the solicitation. |
| <p><u>Prepare and Issue Solicitation</u></p> | <ul style="list-style-type: none"> ✓ Knowledge of the process for formulating pre-award policies, FAR (if applicable) Parts 5 Publicizing Contract Actions, 13 Simplified Acquisition Procedures and 14, Sealed Bidding, etc. ✓ Ability to develop a comprehensive project specification and statement of work that fully and correctly defines the project, addressing roles and missions of the government and contractor. |
| <p><u>Perform Source Solicitation</u></p>  <p>NOTE: Source selection is the process used in competitive, negotiated contracting to select the proposal expected to result in the best value to the Government</p> | <ul style="list-style-type: none"> ✓ Knowledge of the process for formulating a source selection plan that allows for best value selection from a competitive solicitation. ✓ Knowledge of the process for structuring a formal source selection process that is commensurate to the level of procurement action to include the Source Selection Evaluation Board, Source Selection Advisory Counsel/Committee, and Source Selection Authority. |
| <p><u>Administer Contract</u></p>  <p>NOTE: The process of managing the contract and the relationship between the buyer and seller, reviewing and documenting how a seller is performing or has performed to establish required corrective actions and provide a basis for future relationships with the seller, managing contract related changes, and, when appropriate, managing the contractual relationship with the outside buyer of a project.</p> | <p>Knowledge of how to support contract administrative actions.</p> |
| <p><u>Performance-Based Service Agreements</u></p> | <ul style="list-style-type: none"> ✓ Knowledge of how to negotiate for the required level of support at a cost consistent with available support funding. |

| Process | Competencies and Proficiencies |
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| | ✓ Ability to establish a negotiated baseline of performance with operational users, and the corresponding commercial and/or organic support providers. |

Business, Cost Estimating and Financial Management (Entry/Apprentice)

Business, Cost Estimating and Financial Management includes the recognition of the forms of cost estimating, cost analysis, reconciliation of cost estimates, financial planning, formulating projects and budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM) (in accordance with American National Standards Institute (ANSI) Electronics Industries Alliance (EIA) Standard for EVM Systems #748-A, and other methods of performance measurement.

Business, Cost Estimating and Financial Management Objectives

Some key objectives for Business, Cost Estimating and Financial Management include:

- ◆ Define the use of the information system for financial management reporting to include cost estimating, cost analysis, financial planning, formulation of financial projects and budgets, Earned Value Management (EVM) and other performance measurement methods
- ◆ Describe EVM policies, methodologies, and software for performance measurement of projects
- ◆ Identify management techniques
- ◆ Explain the need for an Integrated Baseline Review (IBR) process
- ◆ Identify the allocation of funds within appropriation categories and use of funds from each appropriation
- ◆ Explain cost estimating processes, methods, techniques, analytical principles, data, confidence bands, specialized costing, application of OMB A-94, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, and management applications

Business, Cost Estimating and Financial Management (Entry/Apprentice) Essential Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|---|--|
| <u>Business, Cost Estimating and Financial Management</u> | Knowledge of the forms of cost estimating, cost analysis, reconciliation of cost estimates, financial planning, formulating financial projects and budgets, budget analysis/execution, benefit-cost analysis, Earned Value Management (EVM), and other |

| Process | Competencies and Proficiencies |
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| | methods of performance measurement. |
| <u>Business Financial Planning and Management</u> | Ability to oversee application of Total Life Cycle Systems Management (TLCSM), or a similar concept, which requires the PM to base major decisions on system-wide analyses and the life cycle consequences of those decisions, and on system performance and affordability. |
| <u>Cost Estimating</u>  NOTE: The process of developing an approximation of the cost of the resources needed to complete project activities | Knowledge of cost estimating processes, methods, techniques, analytical principles, data, confidence bands, specialized costing, application of OMB A-94, and management applications. |
| <u>Financial Reporting and Oversight</u> | n/a |
| <u>Debt/Agency Programming, Planning, and Budgeting Type System (OMB A-11)</u>  NOTE: Provide guidance on preparing the FY Budget submission and include instructions on budget execution. | <ul style="list-style-type: none"> ✓ Knowledge of how to allocate funds within appropriation categories and how to use the funds from each appropriation. ✓ Knowledge of the Department/Agency's policy/instructions for financial planning, programming, budget development, and budget execution, OMB A-11 application, including the documentation processes, which are employed in the development and decision making of a Department/Agency's total federal fiscal activity for a given fiscal period. |

| Process | Competencies and Proficiencies |
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| <p><u>Earned Value Management (EVM)</u></p>  <p>NOTE: A project management technique that measures forward progress objectively. EVM has the unique ability to combine measurements of technical performance (i.e., accomplishment of planned work), schedule performance (i.e., behind/ahead of schedule), and cost performance (i.e., under/over budget) within a single integrated methodology. EVM provides an early warning of performance problems while there is time for corrective action. In addition, EVM improves the definition of project scope, prevents scope creep, communicates objective progress to stakeholders, and keeps the project team focused on achieving progress.</p> | <ul style="list-style-type: none"> ✓ Knowledge of earned value management (EVM) policies, methodologies, and software for performance measurement of projects. ✓ Knowledge of the Integrated Baseline Review (IBR) process. ✓ Knowledge of techniques used to determine effective project strategies when EVM indicators are yellow and/or red or cross a threshold. |

Leadership/Professional (Entry/Apprentice)

Leadership/Professional includes the skills, knowledge, abilities and traits acquired through experience, training and education with the government and the private sector, and is cumulative, leading to skilled supervision and seasoned leadership. These competencies may appear in successive levels to emphasize the process of evolving, developing and maturing leadership skills and can include:

- ◆ Oral Communication
- ◆ Problem Solving
- ◆ Interpersonal Skills
- ◆ Accountability
- ◆ Written Communication
- ◆ Flexibility
- ◆ Conflict Management
- ◆ Resilience
- ◆ Customer Service

Leadership/Professional Objectives

Some key objectives for Leadership/Professional include:

- ◆ Define key problem solving techniques to include identifying problems, determining accuracy and relevance of information, use of sound judgment to generate and evaluate alternatives and making of recommendations
- ◆ Apply effective oral and written communications
- ◆ Describe the roles and functions of membership in a working group or project oriented team
- ◆ Demonstrate satisfactory customer service
- ◆ Utilize effective conflict management to include managing and resolving grievances, confrontations or disagreements in a constructive manner
- ◆ Implement accountability techniques for ensure results.

- ◆ Demonstrate flexibility that shows openness and behavior adaptability to change and new information, and effectively deal with ambiguity
- ◆ Identify interpersonal skills to assist with developing and maintaining workable relationships, dealing with difficult people, and relating to people from varied backgrounds

Leadership/Professional (Entry/Apprentice) Essential Core Competencies and Proficiencies

| Process | Competencies and Proficiencies |
|---------------------------------------|---|
| <u>Leadership/Professional</u> | Ability to lead/manage a project team to satisfactory achievement of project goals. |
| <u>Leadership/Professional Skills</u> | <p>These competencies provide a foundation for effective entry-level project manager-related responsibilities:</p> <ul style="list-style-type: none"> ✓ <u>Problem Solving</u> - Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and make recommendations. ✓ <u>Conflict Management</u> - Manages and resolves conflicts, grievances, confrontations, and/or disagreements in a constructive manner to minimize negative personal impact. ✓ <u>Interpersonal Skills</u> - Shows understanding, courtesy, tact, empathy; develops and maintains relationships; deals with difficult people; relates well to people from varied backgrounds; is sensitive to individual differences. ✓ <u>Resilience</u> - Displays fortitude when making unpopular decisions. ✓ <u>Flexibility</u> - Is open to change and new information; adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacle; effectively deal with ambiguity. ✓ <u>Accountability</u> - Holds self and |

| Process | Competencies and Proficiencies |
|---------|---|
| | <p>others accountable for measurable high-quality, timely, and cost-effective results. Determines objectives, sets priorities, and delegates work. Accepts responsibility for mistakes. Complies with established control systems and rules.</p> <ul style="list-style-type: none"> ✓ <u>Written Communication</u> - Recognizes and uses correct English grammar, punctuation, and spelling; communicates information in a succinct and organized manner, produces written information that is appropriate for the intended audience. ✓ <u>Customer Service</u> - Works with customers to assess needs, provide assistance, resolve problems, satisfy expectations; knows products and services. ✓ <u>Oral Communication</u> - Expresses information to individuals or groups effectively, taking into account the audience and nature of the information; makes clear and convincing presentations, listens to others; attends to nonverbal cues. |

Additional Resources

Listed below are some additional resources to supplement the information that you have reviewed for the Project Manager – Entry/Apprentice Level.

- ◆ FAC-PPM Vendor Consortium – a repository of training providers that offer classes and projects that meet training requirements for FAC-P/PM
- ◆ Program Management Community of Practice on the Acquisition Community Connection
- ◆ PMI Government/Local Chapters (chapters are located in Tyson’s Corner, Virginia; Washington, D.C.; etc.)