



DEFENSE ACQUISITION UNIVERSITY

ACQ 101 Fundamentals of Systems Acquisition Management

100901

Course Learning/Performance Objectives followed by its enabling learning objectives on separate lines if specified.

1	<p>Define Systems Acquisition Management, name the principal acquisition regulations, and identify the major institutions and key drivers of the defense acquisition process.</p> <p>Define Systems Acquisition Management.</p> <p>Recognize how risk (cost/schedule/performance) is at the core of acquisition management. Recognize methods for controlling risk.</p> <p>Recognize how risk (cost/schedule/performance) is at the core of acquisition management. Recognize risk in the context of Systems Acquisition Management.</p> <p>Name the principal regulations governing defense acquisition and procurement.</p> <p>Recognize the requirement for effective safety and health programs for every defense acquisition program and top-level legislation that applies to our environmental concern.</p> <p>Identify the key drivers of the defense acquisition process.</p>
2	<p>Recognize the need for a phased-acquisition approach and a tailored acquisition strategy.</p> <p>Recognize the User Needs and Technology Opportunities activities and work content portion of the acquisition life cycle. (Recognize the need for a phased acquisition approach, the acquisition activities, milestones, phases, efforts, decision reviews, and their principle products.)</p> <p>Recognize the Pre-Systems Acquisition Activity and work content portion of the acquisition life cycle. (Recognize the need for a phased acquisition approach, the acquisition activities, milestones, phases, efforts, decision reviews, and their principle products.)</p> <p>Recognize the need for a phased-acquisition approach and a tailored strategy. (Recognize the terms: acquisition program baseline and acquisition strategy.) Part I</p> <p>Recognize the need for a phased-acquisition approach and a tailored strategy. (Recognize the terms: acquisition program baseline and acquisition strategy.) Part II</p> <p>Recognize the Systems Acquisition Activity and work content portion of the acquisition life cycle. (Recognize the need for a phased acquisition approach, the acquisition activities, milestones, phases, efforts, decision reviews, and their principle products.) Part I</p> <p>Recognize the Systems Acquisition Activity and work content portion of the acquisition life cycle. (Recognize the need for a phased acquisition approach, the acquisition activities, milestones, phases, efforts, decision reviews, and their principle products.) Part II</p> <p>Recognize the Systems Acquisition Activity and work content portion of the acquisition life cycle. (Recognize the need for a phased acquisition approach, the acquisition activities, milestones, phases, efforts, decision reviews, and their principle products.) Part III</p> <p>Recognize the Sustainment Activity and work content portion of the acquisition life cycle. (Recognize the need for a phased acquisition approach, the acquisition activities, milestones, phases, efforts, decision reviews, and their principle products.)</p>
3	<p>Identify the major institutions and key drivers of the defense acquisition process and recognize how and why defense acquisition programs are separated into acquisition categories (ACATs).</p> <p>Identify the major institutions and key drivers of the defense acquisition process. (Recognize the roles and responsibilities of the Executive Branch, the Congress and industry in Defense Acquisition).</p> <p>Identify the major institutions and key drivers of the defense acquisition process. (Recognize the key players within DoD who have an impact on the acquisition workforce and programs.)</p> <p>Identify the major institutions and key drivers of the defense acquisition process. (Recognize the senior-level advisory organizations within DOD that have an impact on the acquisition workforce and programs).</p> <p>Identify how and why defense acquisition programs are separated into acquisition categories (ACATs). Recognize ACATs for Automated Information Systems.</p> <p>Identify how and why defense acquisition programs are separated in to acquisition categories (ACATs). (Recognize ACATs for weapon systems and Command, Control, Communication, Computers, and Intelligence (C4I)). Define the term: ACAT.</p>
4	<p>Recognize the nature of group interaction, its principle phases, and how teams arrive at better solutions.</p> <p>Recognize the stages and sequence of small group cohesion.</p> <p>Recognize how group dynamics affect Integrated Product and Process Development (IPPD)/Integrated Product Teams (IPTs).</p> <p>Recognize how group decision making fosters better decisions.</p> <p>Recognize the principle advantages and disadvantages of group decision making.</p>
5	<p>Recognize that the Joint Capabilities Integration and Development System (JCIDS) is antecedent to the acquisition management process, is integral to all activities in developing defense systems, and is the key driver of new defense acquisition programs. Recognize the key players, activities, reviews and principle products.</p>



DEFENSE ACQUISITION UNIVERSITY

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100901

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	Recognize the key players, activities, reviews and principle products. (Identify the three steps in the Joint Capabilities Integration and Development System (JCIDS) methodology).
	Recognize the key players, activities, reviews and principle products. (Identify the document for institutionalizing a capability need and sponsoring further refinement of a materiel solution).
	Recognize the key players, activities, reviews and principle products. (Recognize the role of the Joint Requirements Oversight Council (JROC) in major defense acquisition programs).
	Recognize the key players, activities, reviews and principle documents. (Identify the documents, developed by the user, which refine initial systems capabilities and specify operational performance parameters).
	Recognize why Command, Control, Communications, Computers, and Intelligence (C4I) interoperability must be considered with all affected U.S. and Allied systems.
6	Recognize the inherent power of a well-designed Work Breakdown Structure (WBS) and its application throughout the Defense Acquisition Process.
	Recognize a WBS as a product-oriented hierarchy and an output of the systems engineering process. Recognize the WBS framework.
	Recognize WBS's applicability throughout the acquisition life cycle and across all acquisition management disciplines (e.g., technical/risk management, contracting, financial and business management, and acquisition planning).
	Recognize the two types of Work Breakdown Structures. Recognize the relationship between the two types of WBS. Part I.
	Recognize the two types of Work Breakdown Structures. Recognize who is responsible for development and maintenance of the two types of Work Breakdown Structures. (Program WBS)
	Recognize the two types of Work Breakdown Structures. Recognize who is responsible for development and maintenance of the two types of Work Breakdown Structures. (Contract WBS)
	Recognize the two types of Work Breakdown Structures. Recognize the relationship between the two types of WBS. Part II.
7	Recognize the need for the four basic cost-estimating techniques and their utility to the acquisition life-cycle.
	Define the terms: Budget Authority, Commitment, Obligation, Expenditure, Outlay
	Recognize the scope of Life-Cycle Costs (LCCs).
	Identify the four basic cost-estimating techniques.
	Recognize the particular limitations of each of the four cost-estimating techniques and where each roughly "fits" into the life cycle.
	Identify terms associated with Acquisition Program Cost Estimates: Independent Cost Estimate (ICE) Component Cost Estimate (CCE) Program Office Estimate (POE) Cost Analysis Improvement Group (CAIG) Recognize the cost estimating review process.
	Recognize the cost-estimating review process.
8	Recognize the development process of the DOD budget and its resource allocation and decision-making role in defense acquisition management.
	Recognize the role of the Planning, Programming, Budgeting and Execution (PPBE) process in acquisition management.
	Identify the five major appropriations associated with defense acquisition management. (Identify the obligation period for each of the appropriation categories.)
	Recognize the difference between incremental and full funding policies and to which appropriations each applies.
	Recognize the purpose of the Future Years Defense Program (FYDP).
	Identify the stages and products of each PPBE activity.
	Recognize the key role of the Program Objectives Memorandum (POM) in the PPBE process.
	Recognize that all funds are generated by an appropriations bill.
	Identify the five major appropriations associated with defense acquisition management. (Recognize which category of appropriations would fund specific DOD activities or budget items.)
	Recognize that DOD budgets are prepared or defended periodically.
9	Recognize the funds allocation process, the precepts of the "life span" of Government funds, and the rules associated with different appropriations, and the two laws associated with the execution of DOD budgets.
	Recognize the process for allocating the Budget Authority granted by the enactment process to the services, product divisions, and program offices.
	Recognize the specific obligation and expenditure "windows" for the five appropriations associated with defense acquisition. (Recognize the rules pertaining to funds in expired accounts.)



DEFENSE ACQUISITION UNIVERSITY

ACQ 101 Fundamentals of Systems Acquisition Management

100901

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	Recognize the major provisions of the Misappropriation Act and Anti-Deficiency Act and what they are designed to prevent.
	Recognize the specific obligation and expenditure "windows" for the five appropriations associated with defense acquisition. (Identify the time limits for obligation of funds for each appropriations category.)
	Recognize why the DOD is allowed reprogramming authority. (Recognize the limitations, dollar thresholds, and level of control rules associated with Below Threshold Reprogramming.) Recognize the costs of contractor-furnished data and how to request contractor-furnished data in the RFP.
	Recognize why the DOD is allowed reprogramming authority. (Recognize the basic rules associated with the reprogramming of funds.)
10	Recognize why and how DOD uses contracts to acquire needed supplies and services, the legal nature of contracts, their preparation process, and the different contracts and solicitations that can be used based on the program risk equation.
	Recognize why contracts are needed.
	Recognize the legal nature of a contract.
	Recognize the Federal Acquisition Regulation (FAR) and its Supplements as governing the contracting and procurement processes.
	Recognize the three types of contracting officers.
	Recognize the differences in background, rules, and responsibilities between the PM and the Contracting Officer.
	Recognize the linkage between acquisition strategy, the contracting process, and program risk.
	Recognize the differences between sealed bidding and the negotiation methods of contracting.
	Recognize the differences between variants of fixed-price and cost-reimbursable type contracts.
	Recognize the availability and flexibility of Indefinite Delivery/Indefinite Quantity contract types.
11	Recognize the proposal, preparation, formal source selection, and contract award processes and each process's interrelationship.
	Recognize the work required to develop a contract requirements package and the need for coherent solicitation packages.
	Recognize the RFP development sequence, to include the development of source selection criteria before release to industry.
	Recognize the necessity for a well-written Statement of Work (SOW) and DOD's movement towards using performance-based solicitations. Recognize the costs of contractor-furnished data and how to request contractor-furnished data in the RFP.
	Recognize the costs of contractor-furnished data and how to request contractor-furnished data in the RFP.
	Recognize the format source selection procedure from the receipt of the contractor's proposal.
	Recognize the use of cost and price data in the context of determining a fair and reasonable price.
12	Identify the role of contract administration, in particular the Defense Contract Management Agency (DCMA), the Defense Contract Audit Agency (DCAA), the Defense Finance and Accounting Service (DFAS); the need for a formal contract amendment process; prime/subcontractor relationships; and the impact of unauthorized contract changes.
	Recognize the role of contract administration in the contracting process.
	Recognize the roles of the Defense Contract Management Agency (DCMA), Defense Contract Audit Agency (DCAA), and Defense Finance and Accounting Service (DFAS) in contract administration
	Recognize the ramifications of constructive changes to a contract.
	Recognize the role of contract administration (modifications).
	Recognize the relationship between the Government, prime and subcontractors as defined by the term "privity of contract."
13	Recognize the value and benefits of EVM in the acquisition.
	Recognize how EVM fits into the defense acquisition process.
	Recognize the nine management processes associated with EVM
	Identify the DoD offices and agencies responsible for EVM.
	Recognize required EVM implementation activities. (Recognize how EVM affects contract management procedures and activities.)
	Recognize required EVM implementation activities. (Recognize basic EVM guidelines.)
14	Recognize that the Systems Engineering Process is the process of technical management in the defense environment, and how it is used in translating operational needs and requirements into an integrated, system design solution.
	Recognize six areas of Systems Engineering covered in this lesson and their major goals. (part 1)
	Recognize six areas of Systems Engineering covered in this lesson and their major goals. (part 2)
	Recognize six areas of Systems Engineering covered in this lesson and their major goals. (part 3)
	Recognize that the System Engineering Process (SEP) is essentially a translation and feedback process from operational to system requirements using the Systems Engineering Process.



DEFENSE ACQUISITION UNIVERSITY

ACQ 101 Fundamentals of Systems Acquisition Management

100901

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	Recognize the roles and responsibilities of the Government and the contractor in a typical Systems Engineering Process.
	Recognize the various activities of Systems Engineering throughout the life cycle and the need for integration. (part 1)
	Recognize the various activities of Systems Engineering throughout the life cycle and the need for integration. (part 2)
15	Recognize the DOD 5000-defined process for evolving from operational requirements to systems specific design and the major goals of this process.
	Understand (Recognize*) the need for thorough systems engineering planning as a prerequisite to successful technical development.
	Summarize the various technical activities that are undertaken while engineering a complex system.
	Identify the management processes used to ensure that the technical activities lead to the desired outcomes.
	Recognize the various visual models that are in common use today to describe and recall the process of engineering systems.
16	Recognize the state of U.S. technology, the role and planned evolution of science and technology, and how these two elements apply to the different phases of defense acquisition.
	Recognize the U.S. technology posture in relation to defense acquisition. (Define science and technology.)
	Recognize the U.S. technology posture in relation to defense acquisition. (Understand why a posture of technological superiority is important to the U.S. defense program.)
	Recognize the continuum of science and technology development from the university environment to advanced technologies.
	Recognize the most likely phases in the life cycle to introduce new technologies.
	Recognize the most likely phases in the life cycle to introduce new technologies. (Explain why incorporating new technology in the acquisition cycle is often a major source of program risk.)
	Recognize the most likely phases in the life cycle to introduce new technologies. (State the principles for successful technology integration.)
	Recognize the benefits and drawbacks of Advanced Technology Demonstrations (ATDs) and Advanced Concept Technology Demonstrations (ACTDs). Part I
	Recognize the benefits and drawbacks of Advanced Technology Demonstrations (ATDs) and Advanced Concept Technology Demonstrations (ACTDs). Part II
17	Given a computer-based presentation, recognize: The different types of Test and Evaluation (T&E). The organizations responsible for each. The reason for heavy DOD commitment to T&E. T&E planning and its function as the essential feedback mechanism for the Systems Engineering Process.
	Recognize Developmental Test and Evaluation (DT&E) and the agencies responsible.
	Recognize Operational Test & Evaluation (OT&E) and the agencies responsible..
	Recognize the types of OT&E
	Define test and evaluation.
	Recognize the importance of T&E to milestone decisions.
	Recognize why independent agencies conduct and oversee Operational Test and Evaluations (OT&E).
	Recognize the prime source of testable parameters for OT&E (and factors taken into account).
	Recognize why there is a need (for T&E planning) to develop a TEMP for most programs.
18	Recognize the importance of supportability to achieving system readiness requirements and reducing life-cycle costs.
	Identify the role of acquisition logistics and support costs of a system as they relate to life cycle cost.
	Recognize the relationship between acquisition logistics and availability.
	Recognize the relationship between acquisition logistics and maintainability.
	Recognize the relationship between acquisition logistics and reliability.
	Recognize the importance of supportability as it relates to life to achieving system readiness and reducing life-cycle costs.
	Recognize the importance of conducting supportability analyses as an integrated part of the Systems Engineering (SE) Process.
19	Recognize the importance of the 10 support elements in supportability planning to achieving system readiness requirements and reducing life cycle costs.
	Recognize the 10 support elements. (Design Interface)
	Recognize the 10 support elements. (Maintenance Planning and Manpower and Personnel)
	Recognize the 10 support elements. (Packaging, Handling, Storage, and Transportation; Facilities and Technical Data)
	Recognize the 10 support elements. (Supply Support)



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	Recognize the 10 support elements. (Training and Training Devices and Support Equipment)
	Recognize the 10 support elements. (Computer Resource Support)
20	Recognize the integral nature of systems software in modern defense systems and the policies applicable to software-intensive systems
	Recognize the major components of a computer and the languages it uses to interface with itself, and the language we use to interface with it. Part I
	Recognize the major components of a computer and the languages it uses to interface with itself, and the language we use to interface with it. Part II
	Recognize the major components of a computer and the languages it uses to interface with itself, and the language we use to interface with it. Part III
	Recognize the recent, rapid growth in software-intensive systems.
	Recognize a software-intensive system.
	Recognize the difference between embedded, AIS, and C4I systems. Part I
	Recognize the difference between embedded, AIS, and C4I systems. Part II
	Recognize the difference between embedded, AIS, and C4I systems. Part III
	Recognize the major provisions of the Information Technology Management Reform Act (ITMRA) contained in the Clinger-Cohen Act of 1996.
	Recognize the basic provisions of DODI 5000.2 and DODD 5000.1 that are applicable to software-intensive systems.
21	Recognize the complexity of software development, its integral nature to the Systems Engineering Process (SEP), and top-level "best practices" for successful software development.
	Recognize a software item (SI) and how it functions as a building block of software. Part I
	Recognize a software item (SI) and how it functions as a building block of software. Part II
	Recognize the software development model. (Recognize the steps in the software development process.)
	Recognize how solid requirements analysis and comprehensive testing are the marks of an effective software development program. Part I
	Recognize how solid requirements analysis and comprehensive testing are the marks of an effective software development program. Part II
	Recognize how solid requirements analysis and comprehensive testing are the marks of an effective software development program. Part III
	Recognize the different software development paradigms.
	Recognize the categories of software metrics.
	Recognize the fiscal impact of Post-Deployment Software Support (PDSS).
	Recognize three software "best practices" that are the hallmarks of a well-managed software project.
22	Recognize the major producibility goals of the design effort and the DOD quality process which translates a released design to a producible product.
	Recognize the magnitude of the fiscal commitment to a program in production and beyond.
	Recognize Production, Quality, and Manufacturing as an integrated part of the Systems Engineering Process. Part I
	Recognize Production, Quality, and Manufacturing as an integrated part of the Systems Engineering Process. Part II
	Recognize the 5Ms as they relate to designing a production program.
	Recognize four top-level design goals for a producible product.
	Recognize the contractor's flexibility in selecting quality process.
	Recognize the basic idea of Statistical Process Control.
23	Describe the Facilities Engineering process and how it relates to the DOD Acquisition Process; describe how a Program Manager is made aware of Facilities Engineering issues; describe how Facilities Engineering issues affect acquisition programs; and describe the funding process for Facilities Engineering.
	Recognize the term "Facilities Engineering".
	Identify how Facilities Engineering relates to the DOD Acquisition process.
	Identify and describe the 5 career field functions within Facilities Engineering.
	Identify and describe the primary phases in the life cycle of a facility.
	Identify the role of Special Considerations in the Facilities Engineering process.
	Identify specific Facilities Engineering considerations.
	Identify Combat and Contingency Facilities Engineering.