



DEFENSE ACQUISITION UNIVERSITY

SAM 101 – BASIC SOFTWARE ACQUISITION MANAGEMENT

080221

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

1	<p>Able to identify the three major categories of DoD software-intensive systems, and the roles of software acquisition management in acquisition of these software-intensive systems</p> <p>Can explain the impact of software on DoD systems</p>
2	<p>Familiar with basic terminology associated with information systems to include hardware, software, and networks. Understands purpose and function of major component parts of an information system and is familiar with emerging technologies specifically those associated with IT and software acquisition management activities</p>
3	<p>Can identify key legal and regulatory guidance, including the provisions of the Clinger-Cohen Act, associated with software-intensive systems and is familiar with their basic requirements</p>
4	<p>Can explain the roles and responsibilities of a Chief Information Officer (CIO)</p>
5	<p>Understands fundamental architectural concepts, key tools and their role in the development of software intensive systems, including the role of:</p> <p>Enterprise Architectures</p> <p>Domain engineering.</p> <p>Open Systems Architectures</p> <p>The Global Information Grid</p> <p>The three "views" of the DoD Architectural Framework</p>
6	<p>Appropriately considers risk and objectives when choosing a system-level acquisition strategy and how it can relate to the choice of software development paradigms</p> <p>Can explain different system-level acquisition strategies to include their strengths and weaknesses as well as associated risk</p> <p>Can explain common software development paradigms</p> <p>Can describe the impact of "Brooks' Law"</p>
7	<p>For software-intensive systems, understands commonly used definitions and attributes of software quality as well as methods and techniques that influence software quality</p>
8	<p>Understands and effectively applies software measurement processes for project planning and tracking; software development process assessments; and for improving software products</p>
9	<p>Understands and effectively applies the various categories of software measures as part of the software acquisition management process</p>
10	<p>Understands how the Capability Maturity Model Integrated (CMMI) can be used to distinguish between "mature" and "immature" developers</p>
11	<p>Interprets software indicators in order to identify issues and courses of action</p> <p>Technical Performance Measurement (TPM)</p> <p>Contrast TPM vs. software measurement approaches</p> <p>Provide examples of commonly-used software measures</p> <p>Describe the role of earned Value Measurement (EVM)</p> <p>Understands the issues associated with measuring software "size" in terms of SLOC</p> <p>Distinguish between enterprise-level measurement and program-level measures</p>
12	<p>Understands common risks for software-intensive systems and can describe common management mitigation strategies for them</p>
13	<p>Understands key Information Assurance components, the use of the DoD accreditation process and "critical requirements" for software-intensive systems relating to software safety, security, privacy.</p>
14	<p>Understands the key steps used in the design and development of a software-intensive system to include requirements determination, Work Breakdown Structure, Configuration Management and standards</p>
15	<p>Understands common types and categories of software testing to include maturity criteria and the purpose of the Independent Verification & Validation (IV&V)</p>



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16	Understands the rationale, attributes, data management strategy/activities, program management and acquisition requirements that support DoD Net-Centric data management operations
17	Understands the use of common parametric models for integrated software cost and schedule estimation in the acquisition process
18	Understands computer resource planning; support issues; plans; standards; and activities to include how Reliability, Availability and Maintainability (RAM) differs between software and hardware
19	Understands the key issues in selecting the most appropriate contracting processes for a software-intensive systems to include when "Modular Contracting" should be used and the critical components of the RFP
20	Familiar with common "Best Practices" for software-intensive system acquisition