



**DEFENSE ACQUISITION UNIVERSITY**  
**SYS 203 – Intermediate Systems Planning, Research,**  
**Development and Engineering, Part II**

130326

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

1	Given an overview of the DoD 5000 series documents and the Weapon Systems Acquisition Reform Act (WSARA), discuss how these policies have influenced DoD Systems Engineering across the acquisition life cycle.
	Illustrate the requirements imposed on DoD Systems Engineering due to the approval of the DoD 5000 series documents, WSARA, and supporting policy documents.
	Discuss the definition and importance of "Will Cost and Should Cost" to DoD SE across the acquisition life cycle.
2	<b>Explain how to apply DoD Tools identified in the Defense Acquisition Guide (DAG) to the DoD SE acquisition life cycle.</b>
	Given a homework scenario, explain how the Work Breakdown Structure could be used in DoD to support the SE acquisition life cycle.
	Given a homework scenario, explain how Configuration Management (CM) can be used in DoD to support the SE Acquisition Life Cycle.
	Given a homework scenario, explain how Verification can be used in DoD to support the SE Acquisition Life Cycle.
	Given a homework scenario, demonstrate the difference in Unique Specification and Performance Specification language.
Given a homework scenario, explain how the DoD Design process of Stakeholder Requirements Definition, Requirements Analysis, and Architectural design can be used to support the SE Acquisition Life Cycle.	
3	<b>Given a game play scenario, summarize the DoD System Engineering (SE) Technical Processes and Technical Management Processes and explain how they apply to a product development.</b>
	Summarize the differences between the eight Technical Processes and the eight Technical Management Processes.
	Illustrate the DoD reference sources for the eight Technical Processes and the eight Technical Management Processes.
	Given a game play scenario, explain how each of the eight SE Technical Process steps, in the DAG, applies to a product development.
4	<b>Given a planning scenario, interpret, discuss and apply the key principles presented in the DoD Systems Engineering Plan Preparation Guide during the review of a poorly written DoD SE Plan.</b>
	Given a scenario to compare a poorly written SEP to the requirements in the DoD SEP Preparation Guide, summarize the differences and provide remediation recommendations.
	Assess the impact of insufficient SE technical planning on the outcome of a DoD acquisition program.
	Summarize and discuss DoD policies in the DoDI 5000.02 and DAG concerning the development of a Systems Engineering Plan.
5	<b>Given a scenario, illustrate the SE Technical Management Processes in-use in this scenario and relate them to your work environment.</b>
	Given a scenario, illustrate the eight SE Technical Processes in-use in this technical planning exercise and explain how they apply to your work environment.
6	<b>Given a Materiel Solution Analysis (MSA) scenario, interpret the Initial Capabilities Document (ICD) and supporting documentation to select and defend the best technology options that best meet User Capabilities in accordance with the DAG and DoD 5000 series documents.</b>
	Given a scenario, summarize the User requirements for the MSA Phase which are critical for the technical alternatives.
	Given a scenario, relate the requirements for a Technology Development Strategy to reducing technical risk.
	Given a scenario, analyze the Market Research Report to explain which alternatives best meets the user requirements.
	Summarize the Technical Review(s) for the MSA Phase and describe how they should be used to reduce technical risk.
7	<b>Given a scenario, illustrate the DoD SE Technical Management Processes in-use in the MSA Phase scenario and relate them to your work environment.</b>
	Given a scenario, illustrate the eight SE Technical Processes in-use in this technical planning exercise and explain how they apply to your work environment.
8	<b>Given a Technology Development (TD) scenario, interpret and flow-down the requirements from the Capabilities Design Document (CDD) into the System Specification, and supporting documentation, that allows selection and defense of a technology option that best meets User Needs while keeping in accordance with the DAG and DoD 5000 series documents.</b>
	Recognize and summarize the poorly written requirement statements in the CDD and System Specification and indicate how you would correct them.



**DEFENSE ACQUISITION UNIVERSITY**  
**SYS 203 – Intermediate Systems Planning, Research,**  
**Development and Engineering, Part II**

130326

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

	Prioritize and list the DoD verification methods for requirement statements in the System Specification and defend why you selected that method.
9	Given a TD competitive prototyping scenario, demonstrate an understanding of DoD technical risk management using technical reviews identified in the DAG.
	Summarize the DoD SE Technical Review(s) for this phase and describe how they should be used to reduce technical risk that is in accordance with the DAG.
	Demonstrate the roles of the DoD SE integrated product team (IPTs) in the test and evaluation planning and execution in the TD phase.
10	Given a scenario, illustrate the DoD SE Technical Management Processes in-use in the TD Phase scenario and relate them to your work environment.
	Given a scenario, illustrate the eight SE Technical Processes in-use in the TD Phase and explain how they apply to your work environment.
	Given DoD technical problem solving scenarios demonstrate critical thinking in the selection and defense of a best solution using the guidance provided in the DoD 5000 series documents and DAG.
	Demonstrate the effective use of the DoD risk management process in a variety of different technical scenarios.
11	Given an Engineering and Manufacturing Development (EMD) scenario, use the DoD SE Technical / Technical Management Processes to justify your final product selection that best meets User needs considering the DoD 5000 series documents and DAG.
	Given an EMD scenario, explain how the DoD Design Process steps of Stakeholder Requirements Definition, Requirements Analysis, and Architecture Design influenced your product selection.
	Given an EMD scenario, explain how the verification and validation steps influenced your product selection.
	Given an EMD scenario, explain your selection criteria and tracking method for performance measures that would help to illustrate potential development issues early.
	Given an Evolutionary Acquisition requirement in the EMD scenario, explain how you would manage the requirements while minimizing risks to the current EMD phase.
	Given an EMD scenario, explain how you would manage supportability and disposal risks on your product selection.
12	Given an EMD developmental testing scenario, demonstrate an understanding of DoD technical risk management using technical reviews as specified in the DAG.
	Given an EMD scenario, summarize the User requirements for the EMD Phase which are critical for the technical alternatives.
	Summarize the DoD Technical Review(s) for the EMD Phase and describe how they should be used to reduce technical risk.
13	Given a scenario, illustrate the DoD SE Technical Management Processes in-use in the EMD Phase and relate them to your work environment.
	Given a scenario, illustrate the eight SE Technical Processes in-use in the EMD Phase and explain how they apply to your work environment.
	Given a DoD Production and Deployment scenario, apply materiel and non-materiel solutions in accordance with CJCSI 3170.01G.
	Given a DoD Production and Deployment scenario, explain how you would apply the SE Design Process of Stakeholder Requirements Definition, Requirements Analysis, and Architecture Design to correct product failures in the operational forces.
	Given a DoD Production and Deployment scenario, explain how you would apply a non-material solution to correct product failures in the operational forces.
14	Given a DoD Production and Deployment (P&D) scenario, demonstrate an understanding of DoD technical risk management using technical reviews.
	Summarize the DoD Technical Review(s), specified in the DAG, for the P&D Phase and describe how they should be used to reduce technical risk.
	Demonstrate an understanding of the Manufacturing Readiness Levels (MRLs) and how they are used to reduce risk.
15	Given a scenario, illustrate the DoD SE Technical Management Processes in-use in the Production and Deployment Phase and relate them to your work environment.
	Given a scenario, illustrate the eight SE Technical Processes in-use in the Production and Deployment Phase and explain how they apply to your work environment.



**DEFENSE ACQUISITION UNIVERSITY**  
**SYS 203 – Intermediate Systems Planning, Research,**  
**Development and Engineering, Part II**

130326

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

16	Given an Operations and Support (O&S) scenario, explain how to manage DoD technical risks considering cost, schedule and performance.
	Given a DoD Operations and Support scenario, review the User's Maintenance Reports and Safety Working Group Minutes to develop a correction plan for the product deficiencies that includes a SE technical issue priority list that considers technical risks, funding priorities, and implementation schedule.
	Given a DoD Operations and Support scenario, demonstrate how to properly use the System Safety Risk Matrix as defined by Military Standard 882 using one of the safety issues identified in the User documentation.
17	Given a DoD Operations and Support scenario, demonstrate an understanding of DoD technical risk management using technical reviews.
	Summarize the DoD Technical Review(s), specified in the DAG, for the O&S Phase and describe how they should be used to reduce technical risk.
18	Given a scenario, illustrate the DoD SE Technical Management Processes in-use in the Operations and Support Phase and relate them to your work environment.
	Given a scenario, illustrate the eight SE Technical Processes in-use in the Operations and Support Phase and explain how they apply to your work environment.