



DEFENSE ACQUISITION UNIVERSITY

TST 303 Advanced Test and Evaluation

141202

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

1	<p>Given DoD guidance assess the corresponding T&E impacts of recent legislative, regulatory, policy and guidance changes in the acquisition process .</p> <p>Assess problems/solutions for emerging T&E workforce / human resource management issues.</p> <p>Assess problems/solutions for emerging T&E process issues.</p>
2	<p>Given DoD guidance contrast T&E processes for evaluating overall system performance, operational effectiveness, operational suitability, and military worth.</p> <p>Argue the Pro/Con of using a baseline comparison for T&E.</p> <p>Assess the impact of OSD and Congressional oversight on a T&E program.</p> <p>Outline the process for responding to congressional inquiries regarding T&E.</p> <p>Argue the purpose and importance of test article configuration management.</p> <p>Determine the impact of technical maturity on T&E processes.</p> <p>Evaluate the impact of using critical technologies with various technology maturity.</p> <p>Evaluate the impact of program reporting requirements on the T&E strategy, including T&E inputs to the DAES report / DAES principles.</p> <p>Describe waivers, deviations and other issues that commonly arise prior to OTRR, and how to handle these issues.</p> <p>Specify reasons why systems perform well during DT but are found not effective and/or not suitable during IOT&E.</p> <p>Specify reasons for good DT but not good IOT&E.</p> <p>Develop strategies to preclude having good DT but not good IOT&E.</p> <p>Prepare and present system maturity supporting information to an Operational Test Readiness Review decision maker.</p> <p>Determine possible interactions between T&E management and JCIDS developers.</p> <p>Specify actions associated with development of mission-level evaluation criteria, and advice to developers of JCIDS documents.</p> <p>Determine T&E processes for evaluating all elements of system effectiveness.</p> <p>Determine T&E processes for evaluation of overall system performance.</p> <p>Determine T&E processes for evaluation of system military worth.</p> <p>Describe T&E documents and processes for review and approval of T&E documentation.</p> <p>Compile issues affecting T&E planning that requires a flight clearance certification.</p> <p>Assess the impact/reactions to test article failure during test.</p> <p>Discuss the statutory and regulatory policy for acquisition category designations (ACATs) and impact on T&E.</p> <p>Describe the elements of what constitutes a robust test program.</p> <p>Discuss IOT&E entrance criteria, including how to determine whether a product is ready for IOT&E.</p> <p>Discuss the operational test readiness review process, including the role of the Component Acquisition Executive.</p> <p>Discuss what constitutes production representative test articles, and the implications on the conduct of OT&E.</p> <p>Describe how data should be captured to support baseline comparisons.</p> <p>Discuss assessments that occur to determine system progress toward achieving operational effectiveness and suitability, and military utility during the EMD phase.</p>
3	<p>Given DoD Guidance recommend alternatives for reducing cost drivers within test support resources.</p> <p>Determine processes for validation of threat information and targets.</p> <p>Defend a manpower requirements estimate for a given test project.</p> <p>Defend a cost estimate for a given test project.</p> <p>Defend a support materials estimate for a given test project.</p> <p>Describe the PPBE process.</p> <p>Describe the financial management process.</p> <p>Identify the different categories of test resources that are required in the test and evaluation strategy and TEMP.</p> <p>Identify the sources for threat information, and how to include the threat information in the test and evaluation strategy and resource requirements.</p> <p>Describe the validation of threat simulator systems.</p>
4	<p>Given Acquisition Program Documents (TEMP) the student team will develop an RFP outline</p>



DEFENSE ACQUISITION UNIVERSITY

TST 303 Advanced Test and Evaluation

141202

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

	Justify activities to be included in contracting documents (specification, statement of work, and contract data deliverables) for T&E management.
5	<p>Given Acquisition Program Documents, another student team's RFP outline, and review guidance, the student team will conduct a peer review of another student team's RFP outline</p> <p>Review the contracting documents (specification, statement of work, and contract data deliverables) developed by a peer team and comment on strengths, weaknesses and areas requiring clarification.</p>
6	<p>Given DoD guidance, assess the utility of modeling and simulation for corresponding support of a T&E strategy.</p> <p>Consider the benefits and constraints of using M&S for T&E.</p> <p>Propose when/how M&S can be used for T&E during system development.</p> <p>Critique the concept of using live test data to validate and improve M&S models.</p> <p>Determine Pro/Con of using distributed testing with federations of live / virtual / constructive simulations to represent mission environments for SoS/FoS.</p>
7	<p>Given DoD guidance, compare T&E processes for weapon systems versus those for information technology programs.</p> <p>Specify peculiarities of T&E for IT development programs.</p> <p>Contrast T&E processes for information assurance testing and interoperability testing.</p> <p>Contrast the influence of the various integrated architecture views on execution of a T&E strategy.</p> <p>Assess the critical aspects for conducting T&E of Netcentric operations for SoS/FoS.</p>
8	<p>Given DoD guidance assess activities necessary to manage and control a test site.</p> <p>Describe the impact of legislation directing changes and standardization of test range charge policies and differences between test and training range charge policies and scheduling priorities.</p> <p>Discuss the role of TRMC including requirement for budget certifications and development of a 10-year strategic plan.</p> <p>Determine funding sources for test support shortfalls.</p> <p>Assess the impact of testing with frequency spectrum constraints.</p> <p>Propose alternative resources with the potential to support the T&E strategy.</p> <p>Defend rationale for new T&E capability improvements necessary to support the T&E strategy.</p> <p>Document activities needed for test site management and control.</p> <p>Evaluate test site activities for compliance with OSD/Service guidance.</p> <p>Assess problems/solutions for emerging T&E infrastructure / facility issues.</p> <p>Discuss T&E issues associated with the need for test infrastructure that supports critical near-term and future requirements, such as expanded footprints; frequency spectrum allocation limitations; sustainable range initiatives; and future challenges with Directed Energy and hypersonics testing.</p> <p>Discuss needed test range capabilities to satisfy T&E needs, including instrumentation, operating areas, safety requirements, EIS, and range scheduling and control requirements.</p>
9	<p>Given DoD guidance, and programmatic changes to a notional weapon system in technology development, revise an existing TEMP.</p> <p>Review TEMP Fundamentals.</p> <p>Review PM's guidance of reduction in funding and schedule.</p> <p>Assess impact to T&E Program driven by PM's guidance of reduction in funding and schedule.</p> <p>Assess new risks to T&E Program driven by PM's guidance of reduction in funding and schedule.</p> <p>Revise the TEMP (outline) accordingly to meet the PM's new schedule and budget guidance.</p> <p>Provide rationale for schedule adjustments.</p> <p>Provide rationale for contractor test scope adjustments as compared/contrasted with government DT scope adjustments.</p> <p>Provide rationale for test methodology adjustments.</p> <p>Provide rationale for sample size adjustments.</p> <p>Consider concurrency of system development and system DT.</p> <p>Consider combined/integrated/concurrent DT and OT.</p> <p>Provide rationale for reprioritizing CDD requirements for DT.</p>



DEFENSE ACQUISITION UNIVERSITY
TST 303 Advanced Test and Evaluation

141202

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

	Prepare and present TEMP Concept Brief.
10	Given system documentation recommend a T&E reliability growth strategy that effectively supports corresponding systems engineering reliability growth activities.
	Given the reliability growth sections of a Systems Engineering Plan and DoD guidance on reliability growth, develop an outline of the corresponding reliability growth sections of the TEMP.
	Assess the risks associated with the various reliability growth planning factors for a given program.
	Appraise the potential of a T&E reliability growth strategy that is integrated with SE reliability growth activities to assure a successful T&E reliability growth program.
	Using the PM2 reliability growth planning tool and guidance within the SE Plan, construct the reliability growth curve.
11	Assess the challenges of conducting T&E in support of Rapid Acquisition.
	Compile T&E issues, risks and mitigations, concerning rapid fielding of a system.
	Compile T&E issues, risks and mitigations, concerning use of COTS and/or NDI within a system.
12	Given a scenario develop and defend a listing of factors that influence the T&E strategy, and create a concept for implementing a corresponding T&E Risk Management Board.
	Derive an estimate of T&E cost risks and mitigations.
	Derive an estimate of T&E schedule risks and mitigations.
	Discuss the implications of system safety and ESOH requirements when developing a test and evaluation strategy.
13	Describe new developments in T&E processes, techniques, concepts, principles, and practices, as they apply to weapons and IT systems, and systems integration.
	Document T&E applications of advanced technology for test equipment, including instrumentation, and data collection and processing.
	Document T&E applications of new T&E processes or efficiencies for test planning, conduct and/or data analysis.
14	Given DoD guidance determine T&E expectations from congressional / OSD / service / range perspectives.
	Assess a T&E case for evidence of ethical, responsible conduct.
	Negotiate the role of T&E among other program stakeholders.
	Describe expected professional ethics for T&E personnel.