



SYSTEMS ENGINEERING & ARCHITECTURE

TECHNICAL WORKFORCE HIGHLIGHT:

OCTOBER 2023

TEST AND EVALUATION (T&E) WORKFORCE DEVELOPMENT

T&E

The T&E workforce is responsible for, or is an integral part of, the conceptualization, initiation, design, development, contracting, testing, and evaluation of defense systems across all commodity areas. T&E professionals develop and optimize test designs, execute testing, and perform evaluations of system performance, interoperability, reliability, maintainability, and cybersecurity posture. They also address the maturity of test planning, deal with T&E infrastructure shortfalls, and offer unbiased information to support design improvements and inform production and fielding decisions.

❖ WORKFORCE DEVELOPMENT

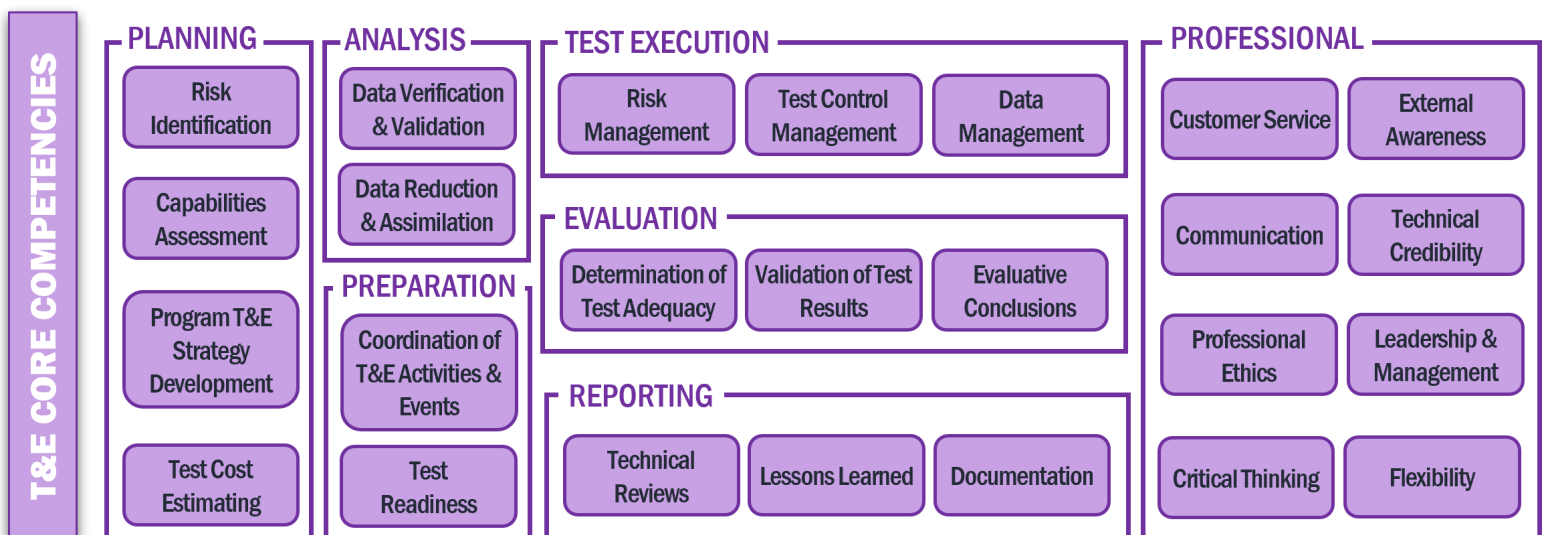
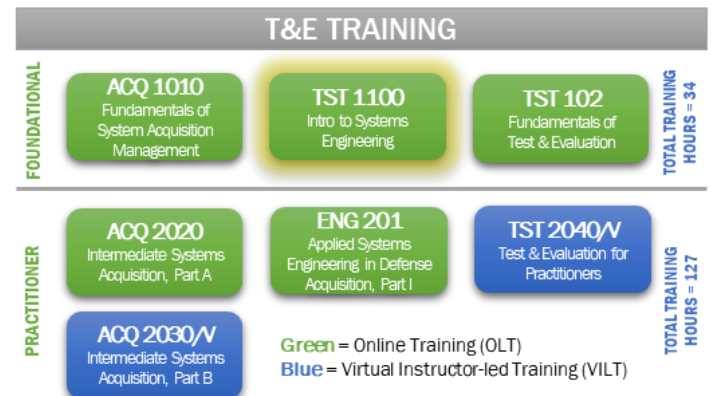
The DoD is investing in the existing workforce by developing and modernizing training and education. Training addresses technical skills needed to transition technology into usable capabilities. The Office of the Under Secretary of Defense for Research and Engineering (OUSDR&E) technical workforce development efforts are guided by Secretary of Defense priorities.

OUSDR&E, T&E workforce leaders from across the Department, and the Defense Acquisition University (DAU) collaborate to develop competencies, training, and credentials for the T&E workforce.



❖ TRAINING

The T&E workforce progresses through training based on targeted proficiency levels for T&E competencies. In July 2023, TST 1100, *Intro to Systems Engineering (SE) for Testers*, replaced ENG 101, *Fundamentals of SE*, providing the T&E workforce a more tailored introduction to SE and reducing training by 6 hours.



TYPICAL ROLES

T&E workforce members hold a variety of positions that may include, but are not limited to, chief developmental tester, assistant program executive officer for T&E, lead test engineer, portfolio manager, test officer, and lead evaluator.



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T&E WORKFORCE DEVELOPMENT cont'd

❖ CREDENTIALS

Defense acquisition credentials:

- Provide job-specific, specialty, and point-of-need training;
- Allow the workforce to customize their knowledge base throughout their career; and
- Are transferable across Components.

OUSDR&E is collaborating with the DAU, Military Services, and Defense agencies to develop more than 15 credentials applicable to the T&E workforce. Several interdisciplinary credentials are already available with more on the way. Credentials currently available can be accessed here:

https://icatalog.dau.edu/onlinecatalog/tabnav_credentials.aspx

T&E CREDENTIALS UNDER DEVELOPMENT IN THESE FOCUS AREAS

Scientific Test and Analysis Techniques

Cyber

Artificial Intelligence

Software

Space Systems

Autonomous Systems

and More!

Supplemental training is available in the form of job-centric credentials.

Applying STAT	Cyber T&E	Quality Surveillance	Manufacturing Surveillance	Artificial Intelligence	DevSecOps
<ul style="list-style-type: none"> • CLE 035 Introduction to Probability and Statistics 	<ul style="list-style-type: none"> • CLE 074 Cybersecurity Throughout DoD Acquisition • CYB 0030 Introduction to Cyber Attack Kill Chain • CYB 5630V Cyber Table Top • CYB 5640 Cyber Training Range 	<ul style="list-style-type: none"> • CME 130 Surveillance Implications of Manufacturing and Subcontractor Management • CMQ 100 Quality Assurance Basics • CMQ 131 Data Collection and Analysis • CMQ 220 Root Cause Analysis • PMT 0170 Risk Management 	<ul style="list-style-type: none"> • CLC 043 Defense Priorities & Allocations System • CME 103 Manufacturing and Delivery Surveillance • CME 130 Surveillance Implications of Manufacturing and Subcontractor Management • CMQ 131 Data Collection and Analysis • CMQ 220 Root Cause Analysis • PMT 0170 Risk Management 	<ul style="list-style-type: none"> • SWE 0056 What Is Artificial Intelligence • SWE 0057 What Is Machine Learning • HOS 0036 AI for Everyone • HOS 0037 AI Algorithms Models and Limitations • HOS 0038 AI Data Fairness and Bias • HOS 0039 AI Privacy and Convenience • HOS 0040 AI Ethics in Action 	<ul style="list-style-type: none"> • SWE 0005 Software Modernization Operational Advantages • SWE 0006 Software Modernization Strategies • SWE 0009 Contracting for Agile Development • SWE 0010 Agile DevSecOps Team Roles & Responsibilities • SWE 0014 User Story Construction • SWE 0015 Introduction: What Is DoDI 5000.87 • SWE 0016 Capability Needs Statement • SWE 0017 Value Assessment (5000.87) • SWE 0019 Agile Backlog Refinement • SWE 0025 Iteration and Release Retrospective • SWE 0026 DevSecOps • SWE 0027 Principles of DevSecOps • SWE 0032 Product Roadmap • SWE 0050 Build a Product Vision • SWE 0051 Developing Software Product Lines • SWE 0052 Build a Release Plan • SWE 0053 End User Agreement • SWE 0054 Software Initial Capability Document • SWE 0055 Kanban Board • SWE 0074 Strangler Pattern • SWE 2002 What Is a Software Development Plan • SWE 2003 Scaled Agile • SWE 2006 What Is eXtreme Programming (XP) • SWE 2014 Configuration as Code (CaC) • SWE 2015 Security as Code (SaC) • SWE 2030 What Is Agile • SWE 2031 What Agile Means for the Defense Acquisition Workforce • SWE 2048 GitOps
Mission Engineering	Secure Cyber-Resilient Engineering	<p>This table includes a list of learning assets by topic area that are available to the workforce for T&E and interdisciplinary credentials that are currently in development. Visit DAU's Course Catalog to register: https://icatalog.dau.edu/onlinecatalog/tabnavlas.aspx</p>			
<ul style="list-style-type: none"> • ETM 1020 Mission and Systems Thinking Fundamentals • ETM 1030 Requirements Definition and Analysis Fundamentals 	<ul style="list-style-type: none"> • CLE 074 Cybersecurity Throughout DoD Acquisition • CLE 080 Supply Chain Risk Management (SCRM) for Information and Communications Technology • CLE 081 Software Assurance Awareness 				

Gold = T&E Credential Assets | Orange = Interdisciplinary Credential Assets

For more information, visit <https://www.cto.mil/sea/workforce/> or email osd-sea@mail.mil, ATTN: Workforce