TEST AND EVALUATION (T&E) WORKFORCE DEVELOPMENT
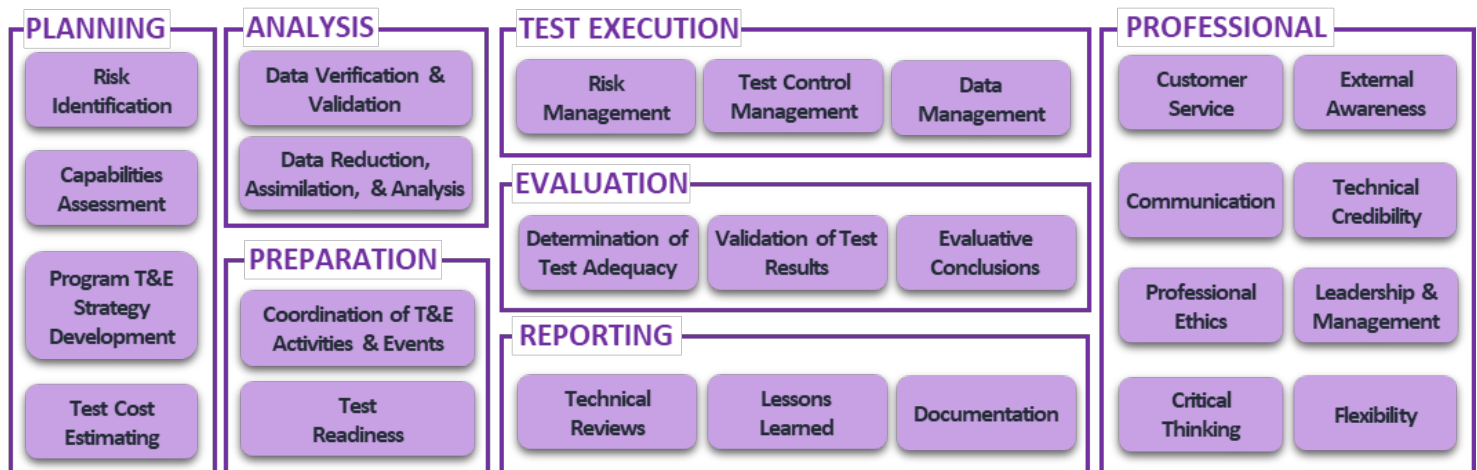
T&E

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 enable accelerated, risk-informed production and fielding decisions.
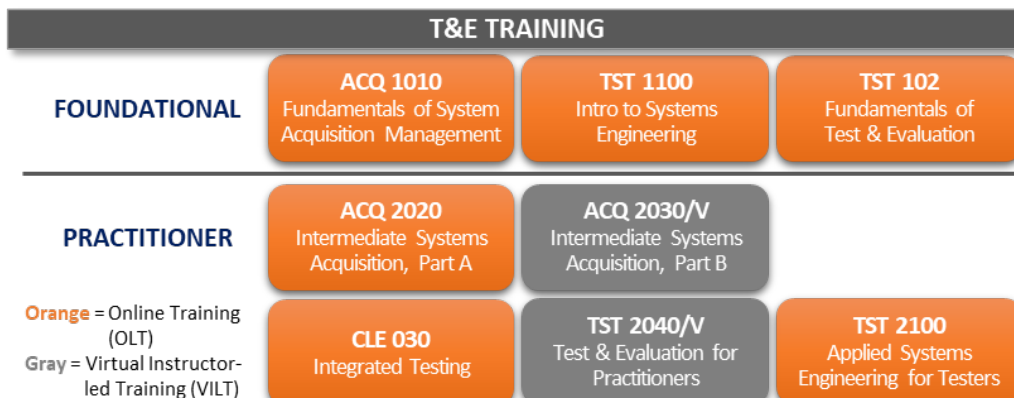
❖ WORKFORCE DEVELOPMENT

The DoW 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 War for Research and Engineering (OUSW(R&E)) technical workforce development efforts are guided by Secretary of War priorities. OUSW(R&E), T&E workforce leaders from across the Department, and the Warfighting Acquisition University collaborate to develop competencies, training, and credentials for the T&E workforce.

T&E COMPETENCIES

PLANNING
- Risk Identification
- Capabilities Assessment
- Program T&E Strategy Development
- Test Cost Estimating

ANALYSIS
- Data Verification & Validation
- Data Reduction, Assimilation, & Analysis

PREPARATION
- Coordination of T&E Activities & Events
- Test Readiness

TEST EXECUTION
- Risk Management
- Test Control Management
- Data Management

EVALUATION
- Determination of Test Adequacy
- Validation of Test Results
- Evaluative Conclusions

REPORTING
- Technical Reviews
- Lessons Learned
- Documentation

PROFESSIONAL
- Customer Service
- External Awareness
- Communication
- Technical Credibility
- Professional Ethics
- Leadership & Management
- Critical Thinking
- Flexibility

❖ TRAINING

The T&E workforce progresses through training based on targeted proficiency levels for T&E competencies. Completion of Foundational certification training is recommended prior to enrolling in Practitioner certification training.

T&E TRAINING			
FOUNDATIONAL	**ACQ 1010** Fundamentals of System Acquisition Management	**TST 1100** Intro to Systems Engineering	**TST 102** Fundamentals of Test & Evaluation
PRACTITIONER	**ACQ 2020** Intermediate Systems Acquisition, Part A	**ACQ 2030/V** Intermediate Systems Acquisition, Part B	
	CLE 030 Integrated Testing	**TST 2040/V** Test & Evaluation for Practitioners	**TST 2100** Applied Systems Engineering for Testers

Orange = Online Training (OLT)
Gray = Virtual Instructor-led Training (VILT)

TYPICAL ROLES

T&E workforce members hold a variety of positions that may include, but are not limited to, Chief Developmental Tester, Assistance Program Executive Officer for T&E, Lead Test Engineer, Portfolio Manager, Test Officer, and Lead Evaluator.

❖ 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.

OUSW(R&E) is collaborating with the Warfighting Acquisition University, Military Services, and Defense agencies to develop more than 15 credentials applicable to the T&E workforce. Several T&E and interdisciplinary credentials are available now with more on the way. Credentials currently available can be accessed through Warfighting Acquisition University's catalog.

AVAILABLE T&E CREDENTIALS

Applying Scientific Test and Analysis Techniques (STAT)
(CTST 001)

4 Courses + Capstone Assessment:
- CLE 035 Introduction to Probability and Statistics
- HOS 0055 Experimental Design Basics
- HOS 0056 Factorial and Fractional Factorial Designs
- TST 2060 Applying STAT to T&E

T&E of Artificial Intelligence Fundamentals
(CTST 005)

9 Courses + Capstone Assessment:
- SWE 0056 What is Artificial Intelligence (AI)?
- TST 0510 What is AI in Test & Evaluation
- TST 0520 AI-Enabled Capabilities Requiring T&E
- TST 0530 Types of AI Affecting T&E
- TST 0540 Machine Learning for Testers
- TST 0550 AI Policies Relevant to Testing
- TST 0560 VV&A of Machine Learning Data
- TST 0570 Evaluating Supervised Machine Learning
- TST 0640 Test Planning for AI-Enabled Systems

For more information, scan the QR code or email osd-sea@mail.mil, ATTN: Workforce

T&E CREDENTIALS IN DEVELOPMENT

Cyber T&E Fundamentals/ Intermediate (CTST 002 / 003)	**T&E Strategy Development and Planning (CTST 009)**
T&E and Tracking Reliability (CTST 006)	**Chemical, Biological, Radiological and Nuclear Defense T&E (CTST 010)**
T&E of Software (CTST 007)	**Test Event Planning and Execution (CTST 014)**
Evaluating Data (CTST 008)	**Space (Satellite and Ground Support) Systems T&E (CTST 016)**

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

AVAILABLE COURSES FOR T&E CREDENTIALS IN DEVELOPMENT

Cyber T&E Fundamentals (CTST 002)   (*7 of 12 courses*)

- CLE 074 Cybersecurity Throughout DoD Acquisition
- CYB 0030 Introduction to Cyber Attack Kill Chain
- CYB 0060 Benefits of M&S in Cyber T&E
- CYB 0100 Cyber T&E Test Planning Overview
- CYB 0110 Cyber T&E Preparation Considerations
- CYB 0130 Cyber T&E Reporting Overview
- CYB 5640 Cyber Training Range

Cyber T&E Intermediate (CTST 003)   (*1 of TBD courses*)

- CYB 5630V Cyber Table Top

The list of available learning assets for T&E and interdisciplinary credentials currently in development is available on SE&A's website, https://www.cto.mil/sea/workforce/.

Workforce members can register for these learning assets through Warfighting Acquisition University's Course Catalog, https://icatalog.dau.edu/.