



SYSTEMS ENGINEERING & ARCHITECTURE

TECHNICAL WORKFORCE HIGHLIGHT:

FEBRUARY 2025

ENGINEERING & TECHNICAL MANAGEMENT (ETM) WORKFORCE DEVELOPMENT

ETM

The ETM workforce has a vital role in developing, fielding, and sustaining high-quality, innovative, affordable, supportable, and effective defense systems and ensuring that DoD products are delivered on time, perform as expected, and are cost-effective. This requires developing and implementing products and services with an integrated technical approach across the total life cycle. It also includes providing the systems, software, and people to satisfy stakeholder needs and expedite transition of technology to the user, as well as early production planning and systematically examining producibility. The ETM workforce has the strategic perspective, technical competence, and critical thinking needed to operate within various product domains and other engineering and technical disciplines.

❖ WORKFORCE DEVELOPMENT

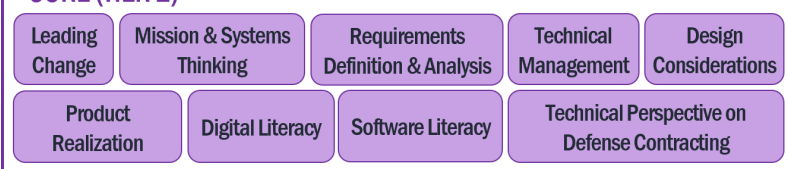
The DoD is investing in the existing workforce by developing and modernizing training and education. Training addresses technical skills needed to transition technology into usable capabilities. The Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) technical workforce development efforts are guided by Secretary of Defense priorities. OUSD(R&E), ETM workforce leaders from across the Department, and the Defense Acquisition University (DAU) collaborate to develop competencies, training, and credentials for the ETM workforce.

❖ TRAINING

The ETM training is based on targeted proficiency levels for ETM competencies. The recommended order to complete these courses is below. Completion of ETM 1060 is recommended prior to ETM 2060; all other ETM 1000-level courses are required prior to their corresponding 2000-level course.

ETM COMPETENCIES

CORE (TIER 2)



SPECIALTY (TIER 3)



ETM TRAINING

FOUNDATIONAL



Complete Remaining 1,000-level Courses in Any Order

PRACTITIONER



Green = Online Training (OLT)
Blue = Virtual Instructor-led Training (VILT)

TYPICAL ROLES

ETM workforce members hold a variety of positions that may include, but are not limited to, Engineer/Chief Engineer, Architect, Software Developer, Specialist (Quality, Reliability, etc.), Production Controller, Researcher/Scientist, Technical Management, and Analyst.



SYSTEMS ENGINEERING & ARCHITECTURE

TECHNICAL WORKFORCE HIGHLIGHT: ETM 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 30 credentials applicable to the ETM workforce. Several ETM and 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

AVAILABLE ETM CREDENTIALS

Program Protection
(CCYB 001)

Artificial Intelligence Foundations for the DoD
(CENG 003)

Cybersecurity for Program Managers
(CCYB 002A)

Agile DoD Team Member
(CENG 004)

Fundamental Secure Cyber-Resilient Engineering
(CCYB 003)

Technology Project Management
(CENG 012)

Intermediate Secure Cyber-Resilient Engineering
(CCYB 004)

Technology Portfolio Management
(CENG 013)

Digital Engineering for DoD Consumers
(CENG 001)

Basics of DoD Software Modernization
(CENG 031)

Data Analytics for DoD Acquisition Managers
(CENG 002A)

R&M Engineering Technical Activities
(CENG 038)

Life Cycle R&M Engineering Programmatic Activities
(CENG 039)

ETM CREDENTIALS IN DEVELOPMENT

Fundamental Mission Engineering
(CENG 005)*

Intermediate Digital Engineering
(CENG 028)*

Software Engineering Intermediate
(CENG 008)

Introduction to DevSecOps Employed in DoD
(CENG 032)*

Intermediate Systems Engineering Requirements & Architecture
(CENG 016)*

Strategic Planning for DevSecOps Implementation
(CENG 033)*

Intermediate Systems Engineering Management
(CENG 017)

DevSecOps Continuous Development in DoD
(CENG 034)*

Intermediate Systems Engineering Product Development
(CENG 018)

DevSecOps Continuous Delivery in DoD
(CENG 035)*

Manufacturing Surveillance
(CENG 020)*

Modern Software Configuration Mgmt Strategies
(CENG 036)*

Quality Surveillance
(CENG 026)*

Securing the DevSecOps Pipeline
(CENG 037)*

*Some learning assets available to the workforce now!

The list of available learning assets for ETM and interdisciplinary credentials currently in development is available at <https://www.cto.mil/sea/workforce/>.

Workforce members can register for these learning assets through DAU's Course Catalog:

<https://icatalog.dau.edu/onlinecatalog/tabnavlas.aspx>.

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



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