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TRADOC Regulation 350-71

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Education Support  
**Enterprise Classroom Program**

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FOR THE COMMANDER:

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**History.** This publication is a new U.S. Army Training and Doctrine Command regulation.

**Summary.** This regulation prescribes responsibilities, guidance and procedures for the Enterprise Classroom Program and concept and capability development, to requirements determination, integration, and sustainment at centers of excellence, schools, training centers, and other training activities.

**Applicability.** This regulation applies to U.S. Army Training and Doctrine Command organizations resourced to produce, implement, and/or evaluate learning utilizing classroom types and capabilities described in this regulation to teach commandant approved programs of instruction.

**Proponent and exception authority.** The proponent for this regulation is the U.S. Army Combined Arms Command. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include commander or senior leader endorsement of waiver requests and formal review by the activity's senior legal officer.

**Suggested improvements.** Submit proposed changes for improving this publication on Department of the Army Form 2028 (Recommended Changes to Publications and Blank Forms)

## TRADOC Regulation 350-71

directly to the Provost, Army University, Directorate for Learning Systems, Policy and Governance Division (ATZL-AUL), Fort Leavenworth, KS 66027-2300. Additionally, individuals and organizations may send comments electronically using [ArmyU@mail.mil](mailto:ArmyU@mail.mil).

**Distribution.** This regulation is available in electronic media only at the TRADOC Administrative Publications website <https://adminpubs.tradoc.army.mil>.

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### Summary of Change

TRADOC Regulation 350-71  
Enterprise Classroom Program

This new regulation, dated 22 December 2020-

- o Describes the Enterprise Classroom Program’s purpose and role in Army training and education (chap 1).
- o Assigns responsibilities for the Enterprise Classroom Program, the supported centers of excellence, schools, training centers, and other supported activities (chap 2).
- o Addresses key execution and management processes from concept through capabilities development, integration, operations, and sustaining classroom and device capabilities, along with resource oversight (chap 3).
- o Highlights supporting and/or related governance forums and recurring reporting activities (chap 4).

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## **Chapter 1 Introduction**

### **1-1. Purpose**

This regulation defines the responsibilities and processes for the Enterprise Classroom Program (ECP) capabilities, requirements, and resources located in all U.S. Army Training and Doctrine Command (TRADOC) centers of excellence (COEs), schools, training centers, and other activities resourced in support of the Army's training and education strategies. This regulation prescribes procedures for validating and sustaining classroom technology under the ECP. This publication addresses key activities from concept and capability development to requirements determination, integration, and sustainment. The regulation defines the responsibilities of the COEs, schools, training centers, and other training activities. In addition, this publication outlines the proponent responsibilities of the program manager (PM). Any coordination with the ECP should be with the ECP PM.

### **1-2. References**

See appendix A.

### **1-3. Explanation of abbreviations and terms**

See the glossary.

### **1-4. Responsibilities**

See chapter 2 for responsibilities.

### **1-5. Records management requirements**

As directed by Army Regulation (AR) 25-400-2, the records management (recordkeeping) requirements for all Army Records Information Management System (ARIMS) record numbers, associated forms, and reports are included in the Army's Records Retention Schedule-Army (RRS-A). Detailed information for all related record numbers, forms, and reports associated are located in RRS-A at <https://www.arims.army.mil>.

### **1-6. Enterprise Classroom Program description and lead**

a. The ECP provides COEs/schools scalable, tailored classroom capabilities that contribute to an efficient and effective learning environment. The program evolved to provide instructors and facilitators the ability to leverage advances in information technology (IT), including the introduction of the internet, within institutional classrooms. The development of additional types of classrooms, to meet specific capability needs, began after initial implementation of this TRADOC program.

b. The comprehensive learning enterprise is comprised of TRADOC COEs/schools, training centers, and other training activities that include representatives from the U.S. Army Center for Initial Military Training, Noncommissioned Officer Center of Excellence, U.S. Army Command and General Staff College, and key stakeholders from across the U.S. Army Combined Arms Center (CAC), U.S. Army Training Support Center, Headquarters (HQ) TRADOC, direct reporting units, and the Headquarters, Department of the Army (HQDA) staff. The enterprise is a

collaboration of organizations, whose structure, governance, policies, procedures, and culture support the existence and evolution of the ECP.

c. The Army University (ArmyU) is the lead for identifying requirements for universally recognized learning systems, to include future classroom required capabilities.

### **1-7. Enterprise Classroom Program mission**

The ECP mission is to ensure adequate classroom technology, support, sustainment, governance, and oversight to enable the Army's training and education mission.

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## **Chapter 2 Responsibilities**

### **2-1. Deputy Commanding General for Combined Arms, U.S. Army Training and Doctrine Command**

U.S. Army Combined Arms Center is the TRADOC core function lead for leader development, education, lessons learned, doctrine, training development, training support, and functional training.

### **2-2. Deputy Commanding General for Education, Combined Arms Center/Provost, Army University**

The Provost, ArmyU approves classroom technology modernization requirements after receiving recommendations from the ECP PM. The ECP Management Office aligns under Directorate for Learning Systems, ArmyU and performs the mission and key tasks described in paragraph 2-3.

### **2-3. Army University, Enterprise Classroom Program Management Office**

The Enterprise Classroom Program Management Office will –

a. Centrally manage and execute the program, from classroom concept development to validation of classroom technology requirements, design, engineering, installation, property accountability, and sustainment, in support of approved instructional methodologies.

b. Implement cost efficient and effective capabilities that are interoperable, scalable, compatible, sustainable, and standardized.

c. Provide the capability to access network infrastructure.

d. Research and evaluate emerging educational technology.

e. Maintain classroom and device mission essential requirements for Commandant approved programs of instruction (POIs) and command directed initiatives in supported COEs/schools.

f. Coordinate with CAC G-8 to plan, program, budget, and execute resources.

**2-4. U.S. Army Training and Doctrine Command Deputy Chief of Staff, G-1/4**

The TRADOC DCS, G-1/4 will-

- a. Coordinate with the ECP and U.S. Army Corps of Engineers (USACE) to ensure project design incorporates the appropriate ECP standards for military construction (MILCON) and restoration and modernization (R&M) projects that include classrooms.
- b. Collaborate on classroom design considerations with USACE and the ECP for incorporation/revision to Army Standard Designs as they pertain to general instructional facilities.

**2-5. U.S. Army Training and Doctrine Command Deputy Chief of Staff, G-3/5/7**

The TRADOC DCS, G-3/5/7 will collaborate with the ECP to support The Army School System.

**2-6. U.S. Army Training and Doctrine Command Deputy Chief of Staff, G-6**

The TRADOC DCS, G-6 will procure information technology (IT) supporting life cycle replacement for student computers in accordance with the ECP requirements and distribution plan.

**2-7. U.S. Army Combined Arms Center G-8**

The CAC G-8 will-

- a. Support TRADOC planning, programming, budgeting, and execution process to include procedures to obtain execution year funds for the ECP.
- b. Manage acquisition management oversight documents for all ECP contracts, to include the Mission Command Arts and Science Program (MCASP).

**2-8. Commanding general of centers of excellence/commandant of schools**

The commanding general of COE/commandant of school will-

- a. Designate a lead with the authority to coordinate with ECP to manage, sustain, and forecast classroom technology requirements.
- b. Approve the organization's classroom technology modernization prioritization list.
- c. Provide subject matter experts to participate in ECP forums described in the governance section in chapter 4. These forums include, but are not limited to, the ECP Working Group (WG) and council of colonels.
- d. Provide administrative and logistical support for classroom support personnel (CSP) to include obtaining a common access card; providing work spaces with common access card-enabled IT equipment and a telephone; and transportation of government equipment, if relocation is required.

e. Obtain program funding, submit required documentation for approval and coordinate with installation personnel for sustainment, restoration, and modernization and/or MILCON projects.

f. Support the enterprise concept development activities, which include ensuring conduct of end of course critiques, surveys, after action reviews, and participation in integrated product team and capabilities based assessments of classroom capability. These review activities inform the development of training and education concepts and strategies, evolution of ECP related required capabilities, and ultimately selection of fielded doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy solutions to the classroom.

g. Inform the ECP of decisions that will impact current classroom operation, organizational movements affecting ECP supported classrooms, or scheduled building construction on a U.S. Army Installation and Management Command installation.

h. Provide information to the ECP to facilitate property accountability and installation of ECP equipment. Although the roles and responsibilities of each office described below may differ slightly at each installation, they should provide contact information for the following personnel and organizations:

(1) The property book officer (PBO) or receiving entity, who will add the property to the organization's property book.

(2) The supported COE/school primary hand receipt holder or receiving entity, who will sign for the property.

(3) The receiving unit, to include the unit identification code and shipping address for the property.

(4) The responsible installation, G-6, or network enterprise center (NEC) that will be imaging the equipment.

i. Coordinate with the local NEC to do the following:

(1) Determine capacity to configure and deploy fixed and mobile devices on the respective installation network.

(2) Ensure classroom devices are fully imaged, added to domain controllers, addresses, port assignments and entries in the active directory for devices and printers, and they are complete and placed on an operable network.

(3) Confirm the installation and configuration of all switches delivered by the ECP, within each classroom or supporting network closet, in support of the audiovisual (AV) technology.

(4) Patch all network cables to switches in support of the classroom.



(5) Gain acceptability of any IT devices connected to the installation local or wide area networks prior to hardware/software acquisition.

j. Coordinate with the G-6 or NEC to ensure computers are imaged.

k. Upon completion of device imaging, work with the NEC to ensure computers are added to domain controllers, and placed on an operable network, before the ECP completes required quality assurance (QA) checks of classroom, auditoriums, and all supporting AV equipment.

l. Coordinate with the ECP PM for execution and governance per chapters 3 and 4.

## **2-9. Director, U.S. Army Combined Arms Center Mission Command Center of Excellence**

The Director CAC MCCOE will-

a. Implement and sustain management of the MCASP. Partner with COE/school leadership to ensure MCASP provides the resources needed to enable efficient and effective mission command (MC) training and education. The resources consist of Mission Command learning environment (MCLE) classrooms, mission command systems (MCS), instructors, and systems technicians.

b. Serve as lead to consolidate COE/school MCASP resource requirements, validates and forecasts requirements. Validation includes MCLE classroom configuration and future requirements. Manage the MCASP sustainment and refresh implementation plan. Work with ECP and CAC G-8 to implement requirements.

c. Publish business rules as a reference to manage the MCASP.

## **Chapter 3**

### **Enterprise Classroom Program Execution**

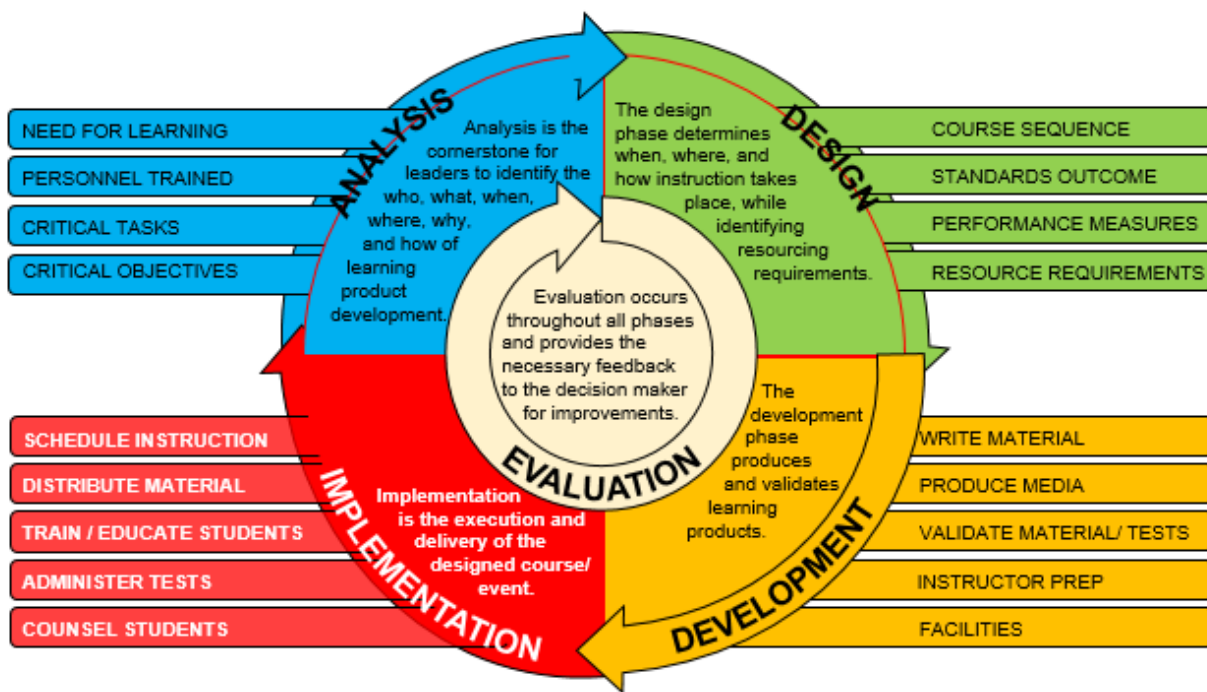
#### **3-1. Enterprise Classroom Program execution overview**

a. ECP provides classroom capabilities responsive to the Army's leader development and training strategies. These training capabilities are consistent with the end state of TRADOC Pamphlet (TP) 525-8-2 that addresses the complexity and framework of TP 525-3-1, and TRADOC Regulation (TR) 350-70. Requirements for the ECP result from Army institutional processes, approved mission training and education loads articulated in Army Training Requirements and Resources System (ATRRS), and COE/school commandant approved training and education methodologies, and unique installation factors.

b. The ECP supports establishment of a modernized digital classroom environment across TRADOC COEs/schools. These classrooms principally support approved instructional methodologies and are documented in POIs associated with resident training and education courses. COEs/schools submit training capability requirements through HQ TRADOC for validation and submission into the structure and manning decision review (SMDR) process. HQDA conducts the SMDR process, validates the training seat requirements based on historical

quota utilization rates, force structure adjustments, and/or strategic senior Army leader decisions. The result of the SMDR is an approved, acceptable, and executable Army Program for Individual Training (ARPRINT) which is the primary training and education mission document used to inform the program objective memorandum.

c. To create adaptive experiences and present the learner with challenging content through a balanced mix of live and technology-delivered means, the Army uses the Accountable Instructional System model. This model incorporates the analysis, design, development, implementation, and evaluation (ADDIE) process. The five phases of ADDIE are a systematic, cyclic, and iterative approach to develop education and training (learning) strategies and determine required technologies for learners. Curriculum developers identify the ECP classroom technology capability as a possible solution to a need during the ADDIE process.



**Figure 3-1. Enterprise Classroom Program considerations in the analysis, design, development, implementation, and evaluation process**

d. ADDIE phases and ECP considerations:

(1) Analysis. The analysis phase serves as the foundation for all Army learning products and drives the design and development of curricula and learning products requiring ECP capabilities. Analysis determines the performance requirement for units, Soldiers, and Army Civilians. The primary analysis processes are used to identify the learning products to design (revise or create), develop, implement, and evaluate.

(2) Design. The design phase of the ADDIE identifies learning objectives, the learning environment, and all resource requirements to include the requirement for an ECP classroom or ECP capability. The proponent identifies where and how learning outcomes are achieved to meet Army requirements.

(3) Development. Select and/or develop instructional methodologies and media during the development phase. The development phase provides the details about the intended training, instruction, or learning product. ECP maintains a list of classroom types and provides a template with standard and optional equipment for selection within training development capability (TDC). These details justify the resources required to execute the learning product, including justification for an ECP classroom or ECP capability.

(4) Implementation. The implementation phase of the ADDIE process includes execution of lesson plans according to its design. Properly maintain ECP facilities, materiel, equipment, and systems and record student performance.

(5) Evaluation. Evaluation is a systematic and continuous method to appraise the quality, effectiveness, and efficiency of processes and procedures, to include those pertaining to ECP classrooms and capabilities. The evaluation phase of the ADDIE process is the quality control mechanism for learning and learning product development as well as ensuring the learner has achieved intended outcomes. The evaluation should include, but is not limited to, observations, lessons learned and best practices.

e. TRADOC COEs/schools create POIs using the ADDIE process in order to submit the content through the Training Requirements Analysis System (TRAS), a planning and management process, to document and validate commander/commandant approved courses/phases for submission into Army resource processes and systems. The TRAS documents capture resource requirements (students, instructors/facilitators, facilities, ammunition, equipment, and funds). The data input into Army training management systems comes from validated and approved course administrative documents and POIs to reflect resourcing requirements. The Army generates the projected mission training load through the SMDR process, and when approved, publishes it in the ARPRINT; the ARPRINT is then used to determine the actual courses and number of classes to train by school code during the fiscal year. Classroom requirements are determined by comparing the number of classrooms needed against the existing inventory of classrooms with the requisite technological capabilities.

f. Classroom requirements. TR 350-18 prescribes responsibilities for COE/school commanders/commandants to ensure adequate facilities to meet course standards. The Army accreditation program responsibilities to verify necessary facilities to meet course standards are also prescribed in TR 350-18. When a COE/school has a requirement, the commander/commandant, or a designated representative, submits a completed Classroom Training Requirements Document (CTRD) to the ECP for validation. The validation considers information from varied sources, such as the ARPRINT, training resources arbitration panel, senior leader initiatives, and assessment of the COE/school on hand classroom capacity. The CTRD defines the capabilities required to conduct training in support of an approved POI. ECP engineers use the CTRD to determine the classroom design, engineering, and the technology for the classroom to best support the instructors, students, and the POI requirements. Information must include COE/school training ready date; building and classroom name and number; supported ATRRS course; type of training and instructor methodology; IT details; and points of contact (POCs). For the latest version of the CTRD spreadsheet, refer to the ECP job aids on

training and education developer toolbox (TED-T). See figure B-1 for the new ECP classroom flow chart. Classroom requirements are either programmed or unprogrammed.

(1) Programmed.

(a) Classroom requirements detailed in the TRAS and supported through the ARPRINT serve as the primary source for the COEs/schools to identify and prioritize their classroom modernization requirements.

(b) MILCON or major R&M projects that include modernized classrooms require coordination and planning with ECP. While the specific situation dictates the detailed course of action, the project will typically resource the construction and/or renovation of the base facility and provide the infrastructure required for providing a classroom environment; the ECP provides the classroom technology/capabilities aligned with a POI. COE/school will coordinate with the installation for adequate programming of any required MILCON or major R&M project.

(c) By design, classroom recapitalization projects modernize/upgrade outdated AV technologies to meet current standards. Examples of these projects include classroom upgrade and technology refresh.

(d) Classroom upgrades. Upgrades increase the capability of an ECP classroom. Updates may drive changes to the POI, revise the method of instruction, and/or Department of the Army or commander/commandant directives.

(e) Technology refresh. A full technology refresh involves replacing all essential classroom capabilities and supporting technologies, while a partial refresh replaces a portion of classroom technology. This occurs when a particular item is broken, obsolete, or too costly to repair; multiple pieces of equipment require replacement due to compatibility issues; additional functional capability is required, such as video-teleconferencing (VTC), microphones, or a display; or, senior leadership directs use of a specific technology or capability. The ECP uses AR 25-1 and a resourced informed timeline for lifecycle replacement refresh for classrooms for planning and budgeting purposes.

(f) Major programs may identify classroom requirements to support new or emerging training requirements. Typically, the PM funds these requirements, if the hardware/software is system unique.

(2) Unprogrammed.

(a) The result of a training resources arbitration panel that identifies classroom requirements to meet near term or emerging increased student throughput requirements not supported by existing, available classrooms at the COEs/schools.

(b) TRADOC COE/school special classroom projects that support emerging training and educational needs.

(c) Non-TRADOC validated requirements that are user funded.

(3) Constraints.

(a) The ECP does not support technology solutions for wooden or temporary building structures, buildings with inadequate heating, ventilation and air conditioning, training areas, or ranges. The director of training from supported COEs/schools must endorse requests for exception to the ECP PM in writing, with justification (see exception to policy title statement). A classroom is a validated requirement if used predominately for training and education to support an approved POI. Auditoriums, lecture halls, conference rooms, barracks, and multi-purpose rooms do not qualify as a validated classroom requirement, unless identified in an approved POI.

(b) Non-TRADOC schools will not receive ECP sustainment support. Classrooms requiring technology support beyond the manufacturer warranty will be user contracted and funded.

g. Classroom types. The capabilities that facilitate methods of instruction define ECP classrooms. Classroom capabilities evolve, consistent with relevant training and education strategies and emerging technologies. One example is the transition to wireless, mobile-centric environments resulting in a decreased need for fixed computers. Specialized training needs may require tailored configurations and capabilities. Each classroom configuration is unique, based on the facilities available, throughput, method of instruction, and seating configurations, including linear, U-shaped, pod and modular. Classrooms may contain an instructor managed, networked computer for each student and may accommodate access to unclassified or classified networks, as required by the POI. See table 3-1, for the ECP classroom types and capabilities descriptions.

(1) Lecture classrooms are instructor-centric and configured to engage students in a mix of live and technology-delivered content. The lecture classrooms divide into three categories: basic, standard, and enhanced lecture configurations. Student devices are not typically furnished in the lecture configuration; however, student devices remain an option, based on course content and methods of instruction.

(2) Collaboration classrooms are student-centric, enabling interaction between facilitators and students. The facilitator may have the capability to remotely monitor student computers and control/display select student computers to the entire class using the presentation system, supporting small-group instruction and collaboration.

(3) Simulation classrooms and the use of simulations with associated immersive tools/devices such as goggles and gloves in other classroom types, supports the requirement for experiential learning and student interaction with fielded programs and systems. Learning enabled through simulations and related technologies provides for the attainment of critical knowledge and skills through immersion of the learner into a robust and realistic training environment without risk of physical harm or damage to equipment at a reduced cost. The MCLE is a subset of simulations classrooms, supported by simulations and facilitating the application of all MCS. The MCLE classrooms enable students to perform as they would in the

operational domain across the entire MCS by leveraging live, constructive, virtual and gaming technologies. Application of MC tasks in these classrooms places the learners in an environment that exposes them to the operational MC requirements. Configured to meet MC learning outcomes, MCLE classrooms vary in configuration and capability. Configured as a room or a group of rooms, the classrooms replicate the operational conditions of MC facilities at different echelons and type units. See appendix F for a detailed description of the MCASP and a MCLE classroom.

**Table 3-1.**  
**Classroom types and capabilities**

Classroom Type	Capabilities
Basic Lecture	<ul style="list-style-type: none"> <li>• Instructor presentation system (IPS) with one or two monitors</li> <li>• Single source display capability</li> <li>• One or more display devices (non-touch display or projector/screen)</li> <li>• Utilizes wired or wireless capability, when available and/or required by POI</li> </ul>
Standard Lecture	<ul style="list-style-type: none"> <li>• Basic lecture capabilities with the addition of the following capability or devices:                             <ul style="list-style-type: none"> <li>○ Multiple source display capability</li> <li>○ Two display devices (touch display or projector/screen)</li> </ul> </li> </ul>
Enhanced Lecture	<ul style="list-style-type: none"> <li>• Standard lecture capabilities with the addition of:                             <ul style="list-style-type: none"> <li>○ Enhanced video devices (touch display, projector/screen, VTC capability)</li> <li>○ Enhanced audio devices (may include microphone capability)</li> </ul> </li> </ul>
Collaboration	<ul style="list-style-type: none"> <li>• IPS with enhanced control/display capabilities</li> <li>• Configurable seating supports student-centric collaborative instruction (U-shape, or 4-6 student pods)</li> <li>• Multiple source display capability</li> <li>• Single or multiple touch primary display device(s)</li> <li>• May include multiple non-touch displays for small group work</li> <li>• May include VTC capability, if required by the POI</li> <li>• Utilizes wired or wireless capability, when available and/or required by POI</li> </ul>
Simulation	<ul style="list-style-type: none"> <li>• IPS with enhanced control and multiple monitors</li> <li>• Multiple source display capability</li> <li>• Single or multiple touch display or projector/screen</li> <li>• Devices that enable use of simulation and/or three-dimensional content</li> </ul> <p><i>Note: MCLE classrooms are further defined in appendix F.</i></p>

**3-2. ECP cycle**

The ECP centrally manages the design, development, integration, and sustainment of classroom technology capabilities for COEs/schools, training centers, and other training activities. See figure 3-2 for the ECP cycle framework showing four distinct processes to manage the ECP. The ECP cycle begins with an assessment, validation and prioritization of classroom requirements for approval. Once approved, the ECP works necessary acquisition actions to secure adequate resources. The execution phase supports program planning, scheduling, and fielding of approved requirements and ensures transfer of property to gaining installation. All ECP and MCASP-managed classrooms receive maintenance and sustainment to ensure readiness. Evaluation is

constant through each process of the ECP cycle. While these processes may appear to occur in sequence, multiple steps can occur simultaneously.



**Figure 3-2. Enterprise Classroom Program cycle**

### 3-3. Assess and prioritize

a. Requirements determination. The classroom modernization process is dynamic and requires continual assessment in support of changing demands, available resources and a diverse classroom portfolio at multiple TRADOC locations. The desired outcome is to field the most effective technology solution in accordance with an approved engineering design to enable an instructor/facilitator to achieve a desired learning outcome in a classroom. The ECP collaborates with COEs/schools to initiate an annual prioritization process at the end of each fiscal year to gain approval for classroom requirements for the following fiscal year. This process requires COEs/schools to:

(1) Identify and prioritize classrooms requiring technology modernization; and

(2) Validate classrooms and devices against approved POIs. A majority of these classrooms require modernization with new technology, upgrades to existing technology, or refresh of particular components. The engagement of the COE/school senior leadership is critical to ensure equity in its requirements list. COEs/schools evaluate their classroom requirements with a rubric that considers weighted criteria that includes the following criteria: command-directed and COE/school priorities, the type of training that the classroom supports including examples such as the Army virtual learning environment enablers, utilization, age of the technology, the mission readiness of the classroom, and classroom validation requirements

model (CVRM) output. The ECP consolidates and integrates inputs from supported COEs/schools into an aggregated 1-n priority list. The MCCOE consolidates and validates MCLE classrooms and resource requirements from supported COEs/schools into an aggregated 1-n priority list in a separate process. See appendix F for how requirements are prioritized and supporting criteria.

b. Validation. Annually, the ECP with support from each COE/school conducts an activity that establishes classrooms and student devices as a mission essential requirement in support of approved POIs.

(1) CVRM. COEs/schools determine annual projected fiscal year classroom training/education requirements through use of the ECP repository CVRM tool. The analysis, supported by a model, addresses site specific factors and leverages institutional Army training systems, processes, and products such as TRAS, ATRRS, TDC, and POIs. COEs/schools define enclaves as geographic portions of their active learning environment where most training and education occurs. COE/schools consider low density, high demand training platforms, military occupational specialty-specific training equipment, funding sources, commandant approved training methodologies, and COE/school unique attributes. Initiated by a TRADOC tasking order, the analysis occurs through collaboration between the ECP and COE/school leadership. The process analyzes projected ATRRS mission training loads, POIs, and other considerations to determine classroom training requirements across the fiscal year, and to identify the annual, aggregated peak training load. Peak load for each enclave is calculated to determine the COE/school classroom requirement. When analysis is complete, the ECP shares the analysis with the COEs/schools for reconciliation and validation. Refinement of the model's output continues by addressing variations such as the conduct of multiple training shifts in a classroom; specialized training equipment or capabilities; site geography and associated transport, or sustainment resources required for student support; and Commandant approved training methodologies. Analysis determines what classrooms are on hand; how many mission essential classrooms are required; and whether there are shortfalls or excess classrooms within the enclave. The approved mission essential requirement supports needed modernization of classrooms in the prioritization process and sustainment. The CVRM tool (requires access rights through ECP) is located at <https://ecp.army.mil> and the tutorial is available at <https://usacac.army.mil/organizations/armyu/enterpriseclassroom>.

(2) COEs/schools execute the Device Validation Requirements Model (DVRM) concurrently with CVRM to validate student device requirements, consistent with the ATRRS mission load. Results of the DVRM process determine the number of student devices by device type and inform when to replace the devices based on projected lifecycle. Student device types divide into two categories: fixed and issued.

(a) Fixed devices can be desktops, laptops and/or tablets. These devices generally remain in the classroom for accountability and serviceability, as determined by COE/school policy.

(b) Issued student devices can be laptops or other mobile devices. Students carry their issued devices with them to class, to the library, to other academic environments, and to their quarters to complete coursework.



c. Prioritization. ECP conducts an annual process to rank classroom requirements in a 1-n priority list. The model used derives a value for each classroom by combining assigned weighting factors against key criteria with COE/school input. As a result of the prioritization process, the following outcomes occur when using the methodology:

(1) ECP produces and distributes a classroom listing, by COE/school, prepopulated with key classroom data from the repository. Data includes a risk assessment matrix score derived through the model, computed based on a combination of factors including classroom age and an individual readiness assessment; the type of training conducted in the classroom; and a value derived from the CVRM.

(2) COEs/schools use the ECP repository prioritization tool to assign a ranking to each classroom based on a range of requirement drivers (such as, TRAPs, etc.); rank their classrooms in priority groups; select required equipment unique to mission requirements; and assess classroom readiness under mission risk/failure. COEs/schools can add new requirements not included in the listing provided. For COEs/schools that previously provided planned requirements, the requirement driver and COE/school priority is preset when provided necessary information. COEs/schools can change the preset data, if any requirements and priorities have changed, and blank columns are available for COEs/schools to provide additional required information. This information does not directly factor into the weighted matrix but may influence decision making in the later stages of the 1-n priority list development process. A prioritization tutorial is available at <https://usacac.army.mil/organizations/army/enterpriseclassroom>.

d. Approval of the 1-n priority list. The commanders/commandants review and approve their 1-n priority list input for return to ECP. Post approval, ECP integrates the COE/school priorities into a consolidated 1-n priority list, and then sorts by the total scoring weight of each room, refining into a consolidated 1-n priority list. An operational grouping function normalizes weights by building and/or an enclave assessment reduces costing factors. The final 1-n priority list cites new classrooms, known or projected classroom technology refresh or upgrade, and other classroom technology modernization projects. An overall cut line is determined, based on the anticipated level of year-end funding projected by CAC G-8. The COEs/schools then receive a list of their requirements above the cut line for additional review and comment. The result is an equitable, 1-n priority list. The ECP briefs the Provost, ArmyU for approval, and presents the prioritized submissions per the model outcomes and feedback from COEs/schools. The Provost, ArmyU notifies COE commanders/school commandants of the approved list, acknowledging all the commander's/commandant's requirements considered and integrated into the consolidated 1-n priority list. ECP briefs the approved execution list to the TRADOC Army Learning Coordination Council (ALCC) for information. The assessment and prioritization phase is complete when the technology modernization contract is awarded, funding applied, and work begins on the classrooms, with the highest priority first.

### **3-4. Resource**

a. Programming and execution.

(1) The ECP works to secure resources for implementation via TRADOC resourcing forums and through coordination with the applicable resource managers. The 1-n priority list identifies funding priorities for the execution year. The ECP centrally manages and executes resourcing of classroom technology design, engineering, installation, and sustainment in coordination with supported COEs/schools. The MCCOE serves as lead for MCLE classrooms. An unprogrammed requirement for technology modernization, rehabilitation, move, reset, or relocate may impact the approved 1-n priority list. The ECP also accepts resources from non-TRADOC (Army) organizations for classroom modernization.

(2) The ECP programs and budgets funds for CSP at COEs/schools primarily with the larger number of classrooms. CSP resources may be locally or centrally contracted and managed by ECP based on resourcing, recommended skillsets, or other requirements.

b. The current ECP support includes these major levels of effort:

(1) Classroom modernization and technology refresh, such as life cycle replacement, supports upgrades, replacement and new instructional classroom training capabilities, enabling a wide range of instructional methodologies and execution of course content. This includes the design, engineering, and tasks necessary to support the integration of technology.

(2) Classroom sustainment providing centralized telephonic, online, and onsite technical support/repair services to maintain fully functional classrooms across supported COEs/schools.

(3) Classroom rehabilitation includes services/materials necessary to prepare the classroom for installation of training technology solutions.

(4) Program support, engineering, and AV support provides centralized classroom implementation and sustainment support.

### **3-5. Execution**

a. The ECP manages approved and validated 1-n priority list classroom projects from initial capabilities assessment and design, through fielding and COE/school acceptance. This process results in instructional technology that meets POI requirements, instructors and training developers, and support personnel who are trained in how to use the instructor presentation system (IPS), and property that is properly accounted for in accordance with Army regulations.

b. Capabilities assessment/design. Upon approval and funding of 1-n priority list requirements, ECP fielding engineers initiate contact with COE/school classroom managers to begin each classroom project. Engineers review the CTRD and conduct a series of meetings with classroom managers, instructors, and training and education developers to create a preliminary design for each classroom in support of needed educational technology capabilities. These meetings occur through various means, either face-to-face or virtual visits to the ECP laboratories (basic, standard, and collaborative), allowing directors of training, instructors, training developers and site leads to view/discuss the capabilities of available AV technology solutions. Once the COE/school approves the preliminary design, the ECP provides the

requirement to the technology installation team. This team provides ECP with a detailed engineer design plan which includes the list of materials and classroom schematics for AV equipment.

c. Scheduling. The ECP manages a work/workload schedule for all classrooms throughout the fiscal year through close coordination with the COEs/schools and installation teams. ECP engineers communicate with COE/school classroom managers to confirm classroom availability, establish classroom work start dates, and synchronize the classroom preparation work with the installation of the new technology. Effective scheduling through the grouping of classroom requirements at a single location results in efficiencies that may affect the final ordering of the 1-n priority list. These efficiencies and others can result in reduced labor, procurement costs and reduced classroom downtime.

d. Fielding. The ECP synchronizes delivery of classroom capabilities to supported COEs/schools. ECP conducts the following key tasks:

- (1) Procures classroom equipment in accordance with the approved list of materials.
- (2) Sends the list of materials to COE PBOs prior to delivery to facilitate production of property documentation.
- (3) Coordinates with the COE/school to ensure rooms are prepared to receive AV equipment prior to scheduled installation.
- (4) Coordinates with the COE/school for security and NEC requirements as applicable prior to scheduled installation.
- (5) Installs classroom technology in accordance with the approved engineer design plan.
- (6) Coordinates with the COE/school for computer imaging prior to installation.
- (7) Conducts training on the IPS with instructors following installation.
- (8) Facilitates turnover to the classroom manager upon completion of installation.
- (9) Store “as built” documentation in the repository for use by CSP as needed. Classroom photographs and QA checklists are stored in the repository for future use.

e. QA. After completion of classroom technology installation, COEs/schools conduct joint QA with the install team. This process ensures all equipment and software are functioning properly.

f. Property accountability. COEs/schools have command responsibility to integrate all classroom equipment into their command supply discipline programs in accordance with the procedures explained in AR 710-2 and AR 735-5. Commanders/commandants implement these procedures to add classroom equipment to the appropriate property book and subordinate unit primary hand receipts. COEs/schools must report any changes in classroom technology,

supported by COE/school funding, to ECP in order to maintain an accurate inventory of equipment to facilitate equipment sustainment and lifecycle management.

### **3-6. Maintain and sustain**

a. Classroom maintenance. Commanders/commandants and leaders at all levels have a responsibility to ensure proper maintenance of classrooms and to train their faculty on the proper operation of the equipment. COEs/schools coordinate with ECP to accomplish the following:

(1) Conduct or request familiarization and training following the installation of new AV technology.

(2) Conduct operator-level preventive maintenance checks and services (PMCS) of classroom technology. Refer to the ECP and TED-T website job aids to read the ECP classroom PMCS checklist.

(3) Schedule and execute refresher training for faculty and staff.

(4) Manage and execute sustainment operations.

(5) Develop materials to facilitate training, such as job aids or checklists.

(6) Share lessons learned and best practices.

b. Sustainment. The ECP sustains technology installed within ECP-managed classrooms. This includes repair/replacement of parts/devices due to normal wear and tear, and repair/replacement of AV and IT equipment. CSPs or locally designated personnel provide on-site classroom support (tier 1), ECP provides a centralized technical support desk (tier 2), and site visits by certified design/install AV technicians (tier 3). The sustainment effort includes the following:

(1) Classroom equipment move (to storage), reset (to original location) and limited relocation activities due to building or facility upgrades.

(2) Limited technology upgrades resulting from non-economically repairable or end-of-life components.

(3) Limited expendables, such as projector lamps and filters. See appendix D for additional information on sustainment.

c. CSP. Select COEs/schools have designated CSP, to provide daily classroom maintenance and troubleshooting activities. The CSP are dedicated, on-site, certified AV technicians trained to understand, troubleshoot, repair, and replace equipment to maintain a fully functional classroom. CSP focus on PMCS and provide input for future life cycle requirements to minimize future equipment downtime. They also provide faculty refresher training on classroom technology. The COEs/schools hire CSPs and agree to key tasks as described in appendix E. The COEs/schools without dedicated CSPs, contact the ECP Sustainment Desk for assistance as described in appendix D.

### **3-7. Evaluate**

Program evaluation is a continual process to help make informed decisions in support of classroom modernization, sustainment, and resourcing, while providing relevant information and trends. The ECP has a systematic method in place to collect and analyze information from all facets of the program to enhance effectiveness and improve efficiency wherever possible. Examples of program evaluation for the ECP include:

- a. Routinely soliciting feedback from the COEs/schools through the ECP WG and other governance forums.
- b. Establishing and maintaining a range of metrics to support senior leader guidance and training and education requirements. These metrics leverage the ATRRS mission-training load and classroom requirements/utilization rates to develop mission essential requirements.
- c. Use of questionnaires/surveys to solicit feedback from COE/school faculty, staff, and students to determine if educational technology employed in the classrooms meets the learning outcomes.
- d. Sustainment metrics to capture key indicators of operational readiness, for example annualized readiness rates; trends in technology failures; non-mission capable classrooms and the issue; number of trouble tickets, their priority, and closure rates.
- e. QA visits to TRADOC COEs/schools to observe business practices/operations; assist in understanding local issues and determining how to improve processes; facilitate in depth group discussion of select topics; and allow marketing of the program.
- f. An ECP evaluation plan is formally documented for senior leadership and used primarily to ensure the costs to field a technology solution are evaluated against the benefits they provide to both students and instructors against learning outcomes.

### **3-8. Repository**

The ECP repository is a web-enabled database/inventory of all ECP classrooms, and contains both current and historical data including hardware, software, modernization, and sustainment activity. It stores classroom and building-specific documents including CTRDs, photos, diagrams, drawings, design documents, and inventory records. Information from the repository supports both requirements determination and the prioritization process. Updating the repository is a final step in the execution phase with the updating of classroom technology data following installation. Multiple reports are available to assist with program management. With repository access, COEs/schools are required to recommend updates to any technology discrepancies in ECP funded classrooms, and report any changes in classroom technology, such as, equipment replacement or modification supported by COE/school funding. COEs/schools are also required to update the repository with POI assignments or reassignments to classrooms as these assignments and/or changes occur. Classrooms are established as mission essential requirement in support of approved POIs.

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## **Chapter 4 Governance**

### **4-1. Governance**

The ECP governance structure leverages a number of forums and processes including institutional/leader development councils of colonels, select TRADOC resourcing forums, ArmyU leadership, the ALCC, and ECP WG.

### **4-2. Enterprise Classroom Program framework**

a. AR 25-1 establishes an IT framework that directs and controls the enterprise IT environment, and it assigns responsibilities to support the Army mission. The mechanism enables the Army Chief Information Officer/G-6 to have visibility and oversight throughout the entire life cycle of the enterprise. Per AR 25-1, the Army Portfolio Management Solution is the Army's authoritative data source (ADS) for IT investments and their associated systems and applications; as well as, information on system and application hosting environments, supporting three principle PFM-related functions: (1) portfolio and IT decision-making, (2) budget formulation and reporting, and (3) portfolio and IT status reporting.

b. TRADOC assists HQDA, G-3/5/7, Office of the Director of Training, Training Support Systems Division, through the Institutional council of colonels with ECP integration and prioritization, resource allocation, and execution oversight.

c. The Information Technology Approval System provides TRADOC with executive oversight over TRADOC IT initiatives and requirements. TRADOC organizations must obtain Information Technology Approval System approval prior to the acquisition of any IT hardware, software, or services.

d. ArmyU, with TRADOC G-3/5/7 support, implements the Army Learning Strategy to drive synchronization along cohorts' continuum of learning. As a subordinate organization within ArmyU Directorate of Learning Systems, the ECP provides training and education technology capability and informs the ALCC governance forum on classroom technology initiatives.

e. ALCC. The ALCC is an intra-Army council for synchronization of training and education in support of the requirements of the Army. IAW TR 350-70, the Deputy Commanding General/Chief of Staff, TRADOC and the Commanding General, CAC co-chair the ALCC and lead the General Officer Steering Committee meetings; the ArmyU Provost is the Vice-chair, and ArmyU administratively supports the ALCC. ALCC General Officer Steering Committee and ALCC Council of Colonels chairs recommend issues with significant synchronization, policy, program, or resource implications for submission to TRADOC, HQDA, or external governance or management forums. The ECP participates in the ALCC to address specific classroom interests.

f. ECP WG.

(1) The ECP PM leads the ECP WG as a collaborative body representing the ECP-supported training and education community of practice and key stakeholders from across TRADOC. The WG consists of TRADOC and non-TRADOC supported COEs/schools and representatives from the U.S. Army Center for Initial Military Training.

(2) The purpose of the ECP WG is to resolve issues, increase transparency, and improve effectiveness across the ECP community of practice. A typical agenda might include: prioritization of requirements, program objective memorandum development, and synchronization of key activities across the enterprise; feedback from the community of practice; time sensitive topics such as mid/end of year unfunded requirements; sharing of lessons learned and best practices; status of MCASP initiatives; and topics nominated by the working group. The WG also sets conditions for senior leader engagement at the ALCC. Given the scope, resources, and time sensitivity of the majority of the activities addressed at ECP WG, COE/school participants should include representation from both G-6 and G-3 and/or director of training.

## **Appendix A**

### **References**

Official Department of the Army (DA) publications and forms to include ARs, Army doctrinal publications (ADP), field manuals (FM), and Soldier Training Publications (STP) are available on the Army publications website; TRADOC administrative publications to include TRs and TRADOC Pamphlets are available on the TRADOC Publications website.

### **Section I**

#### **Required Publications**

##### **AR 25-1**

Army Information Technology

##### **AR 710-2**

Supply Policy below the National Level

##### **AR 735-5**

Property Accountability Policies

##### **AR 740-1**

Storage and Supply Activity Operations

##### **AR 740-26**

Physical Inventory Control

##### **DA PAM 25-1-1**

Army Information Technology Implementation Instructions

##### **DA PAM 710-2-1**

TRADOC Regulation 350-71

Using Unit Supply System (Manual Procedures)

**TR 25-1**

Information Resources Management

**TR 350-70**

Army Learning Policy and Systems

**TRADOC Pamphlet 525-8-2**

The U.S. Army Learning Concept for Training and Education 2020-2040

**Section II**

**Related Publications.**

A related publication is a source of additional information. The user does not have to read a related publication to understand this publication.

**AR 1-1**

Planning, Programming, Budgeting, and Execution

**AR 10-87**

Army Commands, Army Service Component Commands, and Direct Reporting Units

**AR 210-14**

Installation Status Report Program

**AR 350-1**

Army Training and Leader Development

**AR 350-52**

Army Training Support Systems

**DA PAM 420-11**

Project Definition and Work Classification

**TR 5-14**

Acquisition Management and Oversight

**TR 10-5**

U.S. Army Training and Doctrine Command

**TR 10-5-4**

U.S. Army Combined Arms Center

**TR 11-19**

Assignment of Planning, Programming, and Budgeting Responsibilities



**TR 11-21**

Implementation of the Army Quality Assurance Program

**TR 71-20**

Concept Development, Capabilities Determination, and Capabilities Integration

**Section III**

**Prescribed Forms**

This section contains no entries.

**Section IV**

**Referenced Forms**

DA Form 2028

Recommended Changes to Publications and Blank Forms

DA Form 2062

Hand Receipt/Annex Number

DA Form 3161

Request for Issue or Turn-In

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**Appendix B**

**Steps to Obtaining a New Enterprise Classroom Program Classroom**

**B-1. Steps to obtaining a newly modernized classroom training capability**

The steps described in figure B-1 do not address the MILCON general instructional building process. They identify a proponent driven procedure for a new classroom requirement. While the training and education environment is often dynamic given fiscal uncertainty, adaptations for senior leader guidance and initiatives, and out of cycle demand, there is a relatively enduring sequence of actions to establish a new classroom requirement. A proponent can expect that identifying a new requirement, gaining approval, resourcing and execution to take at least a year, and possibly longer. Every situation brings its own nuances and may require tailoring the process. The key steps to identify new classroom requirements are listed below.

a. Identify the gap. COEs/schools identify requirements for a new classroom technology after an assessment determines their existing on hand resources are insufficient to accomplish the training and education mission without adding additional capability.

b. Drafting the requirement. The COE/school (typically a course director or instructor/facilitator team) outlines the details of the new requirement, based on the course/POI, in a CTRD. The COE commander/school commandant or a designated representative approves the CTRD, acknowledging the generation of the new requirement and the associated request for additional resources.

c. Coordination with installation support activities. Upon the commander/commandant or a designated representative's validation of the new requirement, the COE/school coordinates as required, with respective supporting organizations. This may include USACE, U.S. Army Installation and Management Command directorate of public works, NEC, and directorate of training.

d. Validation of the new requirement. ECP assesses the request by the following actions:

(1) Cross referencing the technical details with information in the Repository.

(2) Assessing sufficiency of existing COE/school resources to meet the need via results from the CVRM.

(3) Cross checking for consistency with current command guidance, priorities, and initiatives.

(4) Resolving conflicts with the respective COE/school.

e. Addition of the new requirements to the standing 1-n priority list. The ECP adds validated requirements to the current 1-n priority list. The list is coordinated as part of the annual assessment or added as an unprogrammed requirement. The ECP submits the 1-n priority list to ArmyU in a formal staff action for approval. See para 3-3 for a detailed description of the requirements determination and prioritization process.

f. Resourcing. Upon approval of the 1-n priority list, the ECP works to secure the necessary resources for implementation via TRADOC resourcing forums and through coordination with the CAC G-8.

## **B-2. Execution**

Upon confirmation of resourcing, the ECP integrates the new 1-n priority list into its central management and execution processes.

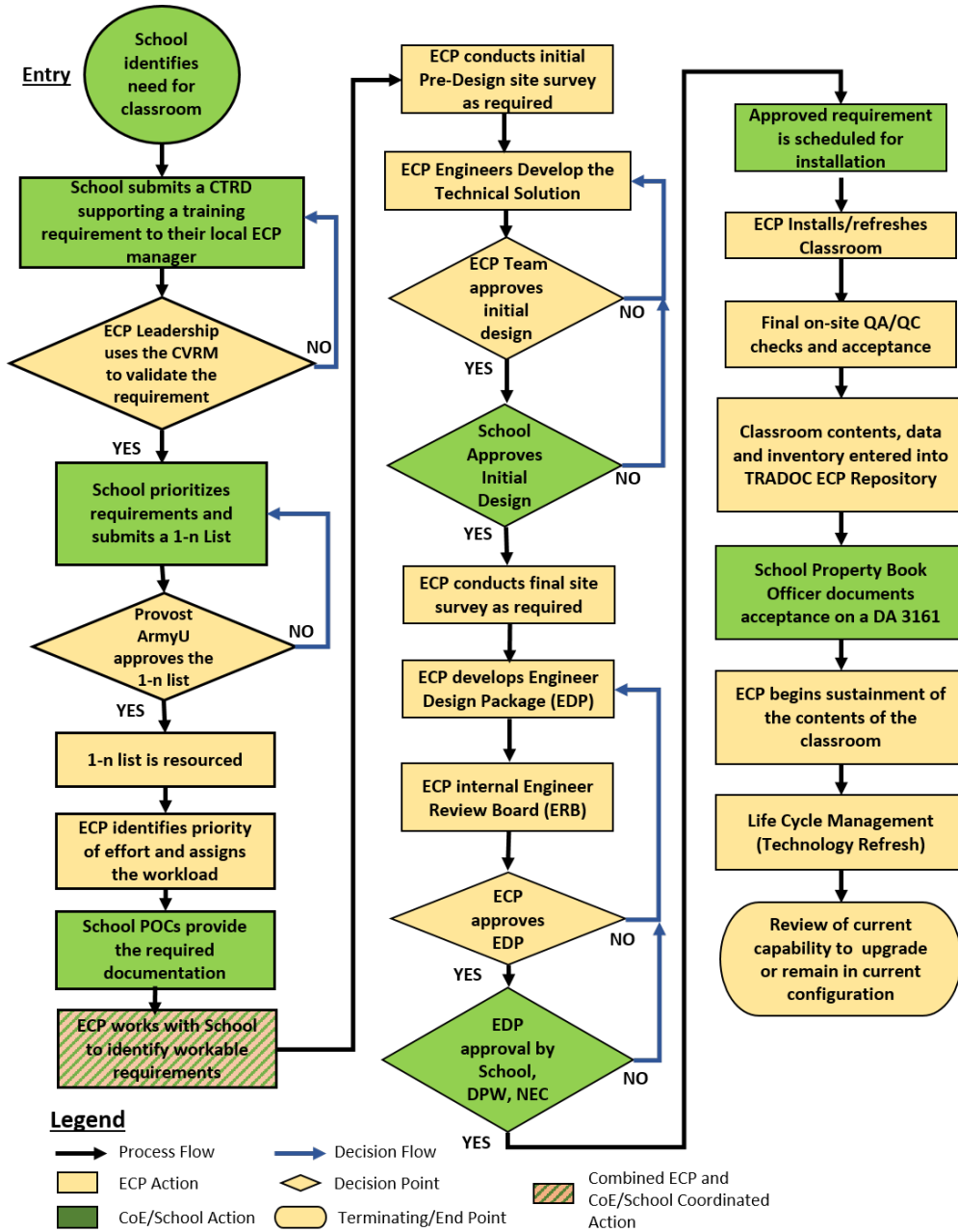


Figure B-1. New Enterprise Classroom Program classroom flow chart

## **Appendix C**

### **Property Accountability**

#### **C. Property accountability**

a. Commanders integrate classroom equipment into their Command Supply Discipline Program. Commanders ensure compliance with applicable regulations to include the AR 710-2; AR 735-5; AR 740-1; AR 740-26; DA PAM 710-2-1; AR 25-1; DA Pam 25-1-1; and TR 25-1.

b. COEs/schools provide the following information to ECP upon approval of classroom implementation: (1) receiving unit's unit identification code, shipping address, and point of contact information; (2) supported COE/school primary hand receipt holder contact information (who signs for the property); (3) PBO contact information (who adds the property to the installation property book); and (4) installation G-6 or NEC contact information (who images the equipment).

c. COEs/schools manage classroom equipment through the installation Global Combat Support System – Army.

d. Prior to, or after technology installation, the ECP provides a list of materials to the COE/school PBO. COEs/schools generate a DA Form 3161 after they verify functionality, sign, and return copies of the completed DA Form 3161 to the ECP office and forward a copy to the IPBO. Once the ECP office receives the signed DA Form 3161, the repository manager adds the equipment to the repository. When COE/school personnel request follow on maintenance and sustainment of support, ECP personnel check the repository to verify that ECP installed the equipment. The ECP office does not sustain equipment that the ECP did not install. Failure to return a signed DA Form 3161 prevents the ECP from adding equipment to the repository and negatively impacts timely sustainment support for that classroom equipment. No personnel will remove any equipment in or out of classroom prior to notifying ECP and G-3/G-6 personnel. Relocating equipment without coordination with the ECP interferes with the timely sustainment of that technology. When a COE/school relocates equipment without informing the ECP, that equipment is considered retired from the ECP.

e. COEs/schools inform the ECP when there is a change in the classroom equipment inventory. If the primary hand receipt holder turns in equipment, the COE/school provides a copy of the turn-in document to the ECP office. The repository manager then removes the equipment from the repository.

f. The COE/school G-4/G-6, NEC, PBO, and the Defense Logistics Agency Disposition Services collaborate to implement procedures for disposal of excess IT and AV equipment and incorporate current Army guidance on reuse, transfer, and donation of equipment as appropriate.

g. In the event a COE/school loses accountability of classroom equipment, the commander directs a financial liability investigation of property loss (FLIPL), an instrument for recording circumstances concerning the loss, damage or destruction of Army property; FLIPLs serve as, or support, a voucher for dropping articles from property records on which they are listed and also

serve to determine any question of responsibility (financial or otherwise) for absence or condition of the items. Once the PBO assigns a control number to the FLIPL, the COE/school provides a copy of the FLIPL to the ECP office to allow the repository manager to remove the equipment from the repository.

h. COE/school information management officers govern maintenance of software in accordance with DA Pam 25-1-1. The information management officer publishes procedural guidance for proper accountability controls for IT hardware and software including hand receipts, property books, and applicable procedures. The information management officer maintains property accountability records in accordance with AR 25-400-2 and ARIMS.

i. If a COE/school determines there is no longer a valid requirement for a specific ECP classroom, the commander's/commandant's representative submits a formal request to withdraw the classroom from the program. This request can be via email or memorandum from the responsible COE/school government representative to the ECP PM. The ECP PM approves the request prior to movement or relocation of the ECP classroom equipment. The request includes the specific classroom the COE/school is requesting to take out of service, the rationale for the request, and the effective date the ECP removed the classroom from the program. The ECP office works with the COE/school to review the requirement through the CVRM process. The ECP will work with the COE/school to determine the best course of action for reuse or turn-in of the equipment. The ECP office will look across the program to determine if there is a cost-effective option to reuse the equipment. Otherwise, the COE/school will turn the equipment in to Defense Logistics Agency Disposition Services and the repository manager will remove the equipment from the inventory.

j. COEs/schools may repurpose computers and other ECP equipment locally after retirement from the program. The ECP no longer programs or budgets for support of retired computers and equipment. COEs/schools coordinate with the TRADOC G-6 for software licensing for any computers that are retired from the program.

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## **Appendix D Classroom Sustainment**

### **D-1. Sustainment program**

This appendix describes the support in place to ensure classrooms operate as intended to support the training mission. Manufacturer warranties cover normal wear and tear related issues for ECP installed technology. The sustainment objective is to maintain classrooms in a fully functional state throughout the classroom's life or until a full classroom refresh occurs. To extend the life of classroom technology and equipment ECP leverages the skills and abilities of CSP, vendor warranties, support contracts and controlled substitution or repurposing of retired equipment. ECP manages an ECP Support Center to assist with resolving issues with instructional technology and provides limited classroom Move/Reset (to original location), or relocate services.

a. ECP Support Center. Supported COEs/schools leverage the ECP Support Center to resolve issues encountered and open support requests for action. When requesting assistance, CSP or other personnel requesting assistance should be in the classroom with the issue and ready to work with an ECP technician over the phone to expedite repairs or resolve issues as quickly as possible.

b. To report a specific piece of hardware, CSP must provide the installation, building number, classroom number, make/model/serial number of the device in question, and a brief description of the issue. Organizations can contact the ECP Help Desk or the ECP Sustainment POC directly if they are experiencing difficulty with timely support.

### **D-2. Sustainment standards of service**

ECP basic sustainment standards listed below:

- a. Respond to sustainment support requests within 24 hours by either telephone or email.
- b. Perform ECP PM approved site assistance visit within 15 business days.
- c. Fulfill ECP PM approved equipment repair/replacement within 15 business days.
- d. Maintain a 24-hour turn-around stock of ECP PM approved projector bulbs.
- e. Use original equipment manufacturer replacement parts.
- f. ECP capability to meet above basic sustainment standards varies based upon the factors listed below:

- (1) Classroom availability.
- (2) Site POC responsiveness.
- (3) Repair issue.

- (4) Vendor turn-around.
  - (5) Equipment warranty.
  - (6) Available original equipment manufacturer parts.
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## **Appendix E**

### **Classroom Support Personnel Duties and Responsibilities**

#### **E-1. Classroom support personnel (CSP)**

a. The TRADOC COEs/schools may have dedicated on-site contracted CSP responsible for classroom maintenance and sustainment activities. The CSP support ECP by resolving classroom support requests, submitting support requests to ECP when required, providing accurate description of issues, annotating measures taken to resolve issues, and providing the make/model/serial number of any equipment requiring attention. The decision to have CSP augment staff depends on the number of classrooms, the type of classrooms, and anticipated workload at that particular institution.

b. This appendix describes key tasks which formally define CSP responsibilities and serves as a reference for COEs/schools and CSP. The ECP programs and budgets for CSP funding and the CAC G-8 distributes resources directly to the sites during the year of execution. These personnel should have certifications prescribed by the ECP.

#### **E-2. CSP description of duties**

The CSP provide Tier 1 maintenance and sustainment services and assist with Tiers 2 and 3 support. The CSP priority is to respond within 24 hours of reported classroom technology operational issues that interfere with training.

a. CSP tier 1 support consists of performing daily, on-site maintenance and sustainment support for installed classroom AV equipment (hardware, software, ancillary, and associated items of equipment to include networking and VTC capability) for ECP classrooms. On-site maintenance and sustainment support include the following:

(1) Use the repository to maintain a daily log of performed tasks such as customer requests and to report recurring or significant issues, classroom PMCS, and issues resolved relative to specified contractual tasks.

(2) Perform annual and record preventive maintenance for each piece of AV equipment installed in the ECP classroom.

(3) Clean/dust projector and AV equipment cabinets as needed, but not less than once per year per classroom.

- (4) Change projector filters and projector lamps, as required.
- (5) Identify, troubleshoot, and resolve classroom equipment performance issues and install government provided part replacements within two business days of receiving equipment.
- (6) At some locations CSP serve as a classroom support representative of the ECP and maintain routine communications with the ECP office.
- (7) Maintain a common operational picture of all ECP classrooms.
- (8) Assist on-site government and other personnel with daily classroom operation of AV equipment.
- (9) Provide on-site AV expertise for ECP classrooms.
- (10) Maintain all specified ECP classrooms daily in a fully functional state operating as designed to perform government training.
- (11) Enter sustainment tickets into ECP online classroom sustainment ticketing system and monitor tickets until successful completion and close out of tickets. Perform an operational test of equipment before closing tickets. When requesting assistance, CSP requesting assistance should be in the classroom with the issue and ready to work with an ECP technician over the phone to expedite repairs or resolve issues as quickly as possible. In the event the report is for a specific piece of hardware, CSP must provide the installation, building number, classroom number, make/model/serial number of the device in question, and a brief description of the issue.
- (12) Maintain inventory of Government Furnished Equipment (GFE) and repair parts to support daily troubleshooting, repair, and preventive maintenance for installed ECP classrooms. Report daily issue of bulbs and parts by classroom in the Repository.
- (13) Coordinate, as required, with ECP technical support POCs to resolve troubleshooting issues.
- (14) Interpret AV signal flow wiring diagrams and schematics.
- (15) Repair category 6 (CAT6) cabling, as needed. COEs/schools are responsible for providing tools to repair cabling.
- (16) Provide classroom operation training to on-site personnel (Soldiers/Army Civilians/contractor) on an as-needed basis upon request. Coordinate, in advance, any contractor training with the servicing contracting officer's representative and the servicing office of the staff judge advocate.
- (17) Support shipping and receiving of classroom equipment repair/replacement parts to include documentation of incoming and outgoing materials, labeling, packaging, and shipment of materials, as required.



(18) Coordinate with the property book officer or designated personnel to track inventory processed for replacement, repair, or turn-in.

(19) Coordinate and obtain approval of ECP sustainment and repository sections to track shipping, replacement, or retirement of local ECP supported inventory.

b. COEs/schools not supported by CSP will contact tier 2 personnel via the ECP Sustainment Desk by calling the ECP provided toll free number or email for assistance. If the problem cannot be resolved remotely, the site will work with ECP office to arrange for a Tier 3 site assistance visit.

c. Tier 2 support provides remote telephonic troubleshooting and resolution of complex classroom technology integration issues and provide the means to procure replacement classroom AV and limited IT equipment via a centrally managed ECP sustainment desk.

d. Tier 3 support involves assistance when removal/installation of heavy equipment is required, electrical issues arise, reprogramming of AV devices or hands-on troubleshooting is necessary to maintain a fully functional classroom.

### **E-3. CSP scheduled activities**

To maintain classroom technology at the highest levels of readiness, CSP follow a prescribed schedule of activities to include:

a. Daily. Monitor all classrooms to ensure all systems are operational. Facilitate proper training for faculty on the use and operation of the systems. The CSP will troubleshoot issues prior to contacting the ECP Support Center and be prepared to work with the ECP Support Center to resolve issues.

b. Monthly. If a classroom has not been in use for 30 days, the CSP will perform a full system check to ensure that all systems are fully functional, including cleaning and dusting projectors and AV equipment cabinets, as needed. The full systems check includes checking all buttons on the touch panel. CSP complete and retain a classroom checklist as a historical record of the systems check and classroom technology operational status.

c. Quarterly. The CSP will inspect all systems and subsystems to ensure all equipment is clean and operational. The CSP will complete calibration procedures on classroom control devices. The CSP will check instructor and student computers to ensure they are operating properly; check portable microphones and laser pointers for leaking batteries; and replace batteries as required. The CSP will launch classroom control software and verify the instructor can see all student computers and route all student computers to applicable displays. The CSP will monitor and record the projector lamp hours. Lamp hours are a prime indicator of pending projector lamp failure and may indicate whether instructors are properly utilizing the systems. Support personnel must log the usage hours for each projector for which they are responsible. The ECP job aids on the ECP and TED-T websites include projector lamp tracking charts.

d. Annually. Visually check projector mounts, projector screen mounts, and plasma/LCD screen mounts to ensure no mounting hardware or wiring is failing. The CSP assist the Command with equipment inventories.

#### **E-4. External coordination**

The CSP coordinate with the ECP Support Center for replacement projector lamps and filters in rooms supported by the program. Expendables, such as printer toner, printer imaging drums, paper, all battery types to include laptop power batteries, complementary metal oxide semiconductor batteries, projector remote batteries, or other handheld remote device batteries, are COE/school responsibility. Standard manufacturer warranties (Original Equipment Manufacturer [OEM]) cover all computers provided by the ECP, starting on the date of delivery to the government. During the computer warranty period, COE/school local IT personnel contact the respective manufacturer for initial support. The caller must provide the support center the express service code or equivalent, located on the personal computer/laptop. The caller should provide the technician a detailed explanation of the issue and troubleshooting steps taken to date. When the OEM warranty expires, ECP will sustain the computer with replacement or repair parts until the next classroom or computer refresh occurs.

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## **Appendix F**

### **Mission Command Arts and Science Program**

#### **F-1. MCASP overview**

a. This appendix provides an overview of MCASP and highlights key procedures related to supporting MC training and education in the institutional domain. The program enables the institutional domain to provide the operational force with Soldiers and leaders that are appropriately grade/cohort competent in MC critical tasks to enhance the readiness of their gaining unit.

b. The MCASP provides COEs and schools with MCLE classrooms and enablers, such as instructors, network technicians and hardware and software to support the implementation of the Army's MC strategy, the Mission Command Training and Education Plan (MCTEP) and allows for the application of the MCS supporting MC.

c. COEs/schools use the ADDIE process to derive MC learning outcomes. POIs approved in TDC are the MCASP requirements documents that drive resourcing decisions. They specify the MC tasks taught, learning objectives supported, resources required, and academic hours required. The resources specified in the POIs are the MC information system, MCLE classrooms configured based on the learning outcome, and MC instructors and network technicians required.

d. Learning outcomes drive configuration of the MCLE classroom in order to allow the learners, at a minimum, to apply the MCS tasks (cohort/grade/level appropriate) as specified in the MCTEP. Application of MCS tasks in these classrooms can place the learners in an interactive environment and expose them to the MC operational requirements of their gaining unit's command posts. The MCLE classrooms can configure to replicate the capabilities of a

command post environment to improve leader proficiency in the exercise of MC. Ultimately, this learning experience supports gaining unit's readiness. This level of interactivity and capability to replicate operational conditions distinguishes a MCLE classroom from other ECP classrooms.

e. The MCCOE serves as the lead to consolidate, validate and secure resources to support MC training and education. Additionally, the MCCOE serves as an enabler for the PM for Command, Control, and Communications – Training fielding and training of new MC systems to the institutional domain.

f. The MCCOE analyzes and appraises the quality of the program in the institutional domain based on the MC needs of the operational force. This includes an analysis of the COE/school's MC quality assurance programs.

## **F-2. MCASP procedures overview**

a. The MCCOE conducts an annual analysis and validation of COE/school MCASP requirements and resources. During this process, the COE/school informs MCCOE of current and projected resource and MCLE classroom requirements. This includes the number and configuration of the classrooms and requests to upgrade or downgrade a current MCLE classroom to collaboration. If downgrading MCLE classrooms, the MCCOE assesses the need to reallocate resources. Additionally, the COE/school provides a list of resources, equipment and MC instructors and network technicians required.

b. MCCOE validates the COE/school requirements and resources through a review of POIs and completeness of input to the data calls. Based on requirements specified in POIs found in TDC and the ATRRS mission load, MCCOE allocates MCASP resources.

c. The end state of the annual analysis of requirements process is a validated and approved list of resources from each COE/school. The MCCOE approves these resources and contracts supporting MC instructors and network technicians. The MCASP sustainment strategy includes a plan for MC equipment refresh and a MCLE classroom refresh every four years.

d. The MCCOE consolidates all COE/school input for resource requirements and conducts a prioritization process to form an MCASP 1-n priority list. This list provides the programs priority of refresh for both MC equipment and MCLE classrooms. It specifies the upgrade / downgrade strategy and level of contract support for each COE/school. These documents form the basis for the consolidated MCASP program objective memorandum submission to CAC G-8.

e. After MCASP secures funds for MCLE classrooms, the MCASP works with ECP to implement through existing ECP contracts. The MCASP Manager works with CAC G-8 and G-6 for the refresh of MC equipment.

f. Based on approved 1-n priority list and executed through existing ECP contracts, MCASP implements the MCLE classroom refresh plan. This includes implementation of classroom upgrades to MCLE classroom and downgrades in classroom capabilities.

g. MCASP implements the MCS refresh plan, based on an approved 1-n priority list and executed through CAC G-6 and existing strategies. After MCASP equipment purchase, it is “drop shipped” to the gaining installation, requiring the COE/school to install the MC equipment and software. MCASP works with the COE/school to identify software requirements, then serves as lead to coordinate with the proponent for the appropriate software. MCASP provides the MC software to the gaining installation on an external hard drive.

## Glossary

### Section I Abbreviations

ADDIE	Analysis, Design, Development, Implementation, and Evaluation
ALCC	Army Learning Coordination Council
AR	Army regulation
ARIMS	Army Records Information Management System
ArmyU	Army University
ARPRINT	Army Program for Individual Training
ATRRS	Army Training Requirements and Resources System
AV	audiovisual
CAC	U.S. Army Combined Arms Center
COE	center of excellence
CSP	classroom support personnel
CTRD	classroom training requirements document
CVRM	classroom validation requirements model
DCS	deputy chief of staff
ECP	Enterprise Classroom Program
FLIPL	financial liability investigation of property loss
HQ	headquarters
HQDA	Headquarters, Department of the Army
IPS	instructor presentation system
IT	information technology
MC	mission command
MCASP	Mission Command Arts and Science Program
MCCOE	Mission Command Center of Excellence
MCLE	Mission Command learning environment
MCS	Mission Command system
MCTEP	Mission Command training and education plan
MILCON	military construction
NEC	network enterprise center
OEM	original equipment manufacturer
PBO	property book officer
PM	program manager
POC	point of contact
POI	program of instruction

PMCS	preventive maintenance checks and services
QA	quality assurance
R&M	restoration and modernization
SMDR	Structure and Manning Decision Review
TED-T	Training and Education Developer Toolbox
TDC	training development capability
TP	U.S. Army Training and Doctrine Command pamphlet
TR	U.S. Army Training and Doctrine Command regulation
TRADOC	U.S. Army Training and Doctrine Command
TRAS	Training Requirements Analysis System
USACE	U.S. Army Corps of Engineers
VTC	video teleconferencing
WG	working group

## Section II

### Terms

#### Classroom list of materials

The engineer design plan includes a list of materials document. That document is loaded to the repository, along with the rest of the engineer design plan for future comparison to the as-built diagrams and as-built inventory with applicable forms.

#### Classroom move/reset

A classroom Move/Reset occurs when the ECP dismantles classroom technology, moves the equipment temporarily to a secure location and then later reinstalls the equipment in its original location. COEs/schools may request the ECP to execute move/resets when facilities housing ECP supported classrooms undergo renovations. This service preserves the integrity and availability of the technology for later use and conserves funds that may have otherwise necessitated a full classroom refresh. COEs/schools should communicate Move/Reset needs with as much notice as possible to allow sufficient planning and budgeting to complete the action in a timely manner and not delay renovation contract.

#### Classroom move/relocate

A classroom Move/Relocate action involves removing a classroom's ECP equipment, storing it in a temporary location, or immediately reinstalling the technology in a new location on occasions when a training unit relocates, their building turned over to a non-training organization (for example U.S. Army Installation and Management Command), and the equipment is in good working order. While less expensive than a new classroom, there is still a design requirement and infrastructure (electrical and data) cost to consider. Move/Relocate actions require timely identification to the ECP. The ECP Sustainment Section does not typically fund move/relocation actions and all expenses are borne by the COE/school. Because the ECP usually completes these actions through the same mechanism as new classroom installations and technology refreshes, they require more lead time for planning and budgeting.

**Classroom support personnel (CSP)**

Audiovisual industry certified personnel charged with troubleshooting, repair and replacement of parts/devices and provide operational assistance to classroom instructors. First responders to support requests within the COEs/schools.

**Classroom training requirements document**

This document provides information regarding the installation, COE/school, building and classroom number at the requested classroom site. The documents capture information crucial to determining capabilities required to support POIs. This document serves as the starting point for the classroom design process.

**Classroom validation requirements model**

Through an annual process, the model validates the mission essential classroom and device requirements for ECP supported COEs/schools, consistent with the ATRRS mission load.

**Collaboration classroom**

Previously Level III classrooms, Collaboration Classrooms are student centric classrooms. The Collaboration Classroom contains an IPS and an instructor managed, networked computer for each student. The capability enables the instructor/facilitator to remotely monitor student computers and control/display select student computers to the entire class using the presentation system, supporting small-group instruction and collaboration.

**Device validation requirements model**

Through an annual process, the model validates the mission essential classroom and device requirements for ECP supported COEs/schools, consistent with the ATRRS mission load.

**Enterprise Classroom Program (ECP)**

The ECP centrally manages the design, development, integration, and sustainment of classroom technology capabilities to TRADOC COEs/schools, training centers, and other training activities.

**Enterprise Classroom Program repository**

The ECP repository contains an inventory of all ECP classrooms, their locations (building/room), and the type of classroom. The Repository stores key dates associated with each classroom, including the installation and replacement of technology. The ECP uses these dates to generate an effective “age” of the technology available in a classroom. The ECP creates a report that lists the classrooms in need of technology refresh in an oldest-first format. The user can independently set desired ages for both computers and audiovisual technology based on the desired refresh intervals and can subsequently sort the report based on the type of classroom (for example leader development, functional, or initial military training), the school, and/or the courses taught in the classroom. This sequenced list serves as the basis for prioritizing classrooms for technology refresh.

**Hardware warranty tracking**

The ECP tracks warranty data for each piece of equipment in the classroom by the date of installation, date of approval, contractor warranty, manufacturer warranty, and any special or

extended warranties offered by any entity. The ECP may track this data at the equipment level or at the make/model level.

### **Instructor presentation system**

The set of AV and IT components that combine to facilitate delivery of classroom material in support of approved POIs.

### **Lecture classroom**

Previously known as Level I classrooms, they are instructor-centric classrooms configured to engage students in a mix of live and technology-delivered content. The lecture classroom contains an IPS with either projectors or video displays.

### **Mission Command Arts and Science Program (MCASP)**

The MCCOE executes the MCASP by partnering with the COE/school leadership to provide the resources for conducting MC training and education for the eleven common and warfighting functional MC systems. COEs/schools provide the operational force with Soldiers and leaders of the appropriate grade and cohort who can competently execute MC critical tasks.

### **Mission Command learning environment (MCLE) classrooms**

Previously known as Level IV, MCLE classrooms support the increased requirements for experiential learning and student interaction in the application of all Mission Command systems (MCS). These classrooms are a subset of simulations classrooms. MCASP designates a classroom as a MCLE if the majority of classroom utilization focuses on the application of MCS tasks. These classrooms allow learners to perform as they would in the operational domain across all the entire MCS and leverage live, constructive, virtual and gaming technologies to achieve mission command learning outcomes. The application of MC tasks in these classrooms places the learners in an environment that exposes them to the operational MC requirements of their gaining units. MCLE classrooms vary in configuration and capability and MCASP resources these classrooms to meet MC learning outcomes. Configure MCLE classrooms as a room or a group of rooms to replicate the operational conditions of MC facilities at different echelons and type units.

### **Mission Command training and education plan (MCTEP)**

The MCTEP provides a roadmap of progressive learning requirements throughout a Soldiers/civilians career. The MCTEP provides a holistic view of training and education outcomes at specific cohorts, ranks, and echelons to facilitate a shared understanding of expectations on what Soldiers/civilians should "know" or be able to "do" when they transition between the institutional, operational, and self-developmental domains.

### **Programmed classrooms**

Programmed classrooms are those approved for work but not yet funded on a contract. The ECP denotes these classrooms in the Repository and displays them in a report for future assignment to a contract when funding becomes available.

### **Simulation**

An imitation of the operation of a real-world process or system.

### **Simulation classroom**

Previously known as Level IV classrooms, simulation classrooms support student interaction providing the capability to imitate reality, functionality and operations to include fielded systems such as mission command. The MC simulation classroom contains an IPS and an instructor managed, networked computer for each student while other classrooms (simulation, lecture and/or collaboration) include simulation content as well as devices that enable immersion into simulated environments to include the synthetic training environment and/or Army virtual learning environment. Simulation classrooms vary in configuration and capabilities based on the fielded systems they support.

### **Software licensing**

Formal authorization, procured from a commercial vendor, to use commercial off the shelf or OEM classroom software.

### **Support contracts**

Formal agreements with commercial vendors to provide products and services in support of the TRADOC ECP in the areas of program management, technology modernization, device procurement, maintenance and repair, and classroom rehabilitation.

### **Sustainment (ECP)**

Assistance provided to COEs/schools and other supported activities to maintain classroom instructional technologies in a fully functional state. The ECP provides assistance via repair and/or replacement parts, telephonic support or on-site assistance when required.

### **Sustainment support requests**

Through the ECP Support Center, classroom managers and CSP have access to a toll-free number to troubleshoot AV equipment issues and a web based ticketing system to enter repair requests. Instructors contact CSP or other local POCs for assistance. The objective repository will accommodate the ticketing system.

### **Technology refresh**

Partial or full replacement of existing capabilities in a classroom. A full technology refresh includes refreshing all essential classroom capabilities and supporting technologies. A partial refresh occurs when a portion of classroom technology is replaced and may occur when a particular item is broken and too costly to repair; a room has multiple pieces of equipment that must be replaced due to compatibility issues; a specific functional capability (VTC, microphones or display) must be added to the classroom; or a specific technology or capability is directed by senior leadership. The ECP uses AR 25-1 and a resourced informed timeline for lifecycle refresh for classrooms for planning and budgeting purposes. The ECP identifies recurring refresh requirements through analysis of the Repository.



**Section III**  
**Special abbreviations and terms**

1-n priority list

A 1-n priority list is a decision-making tool to identify an organization's first to last number (n) of priorities for resource and financial implication considerations.